Billy Cook

EXECUTED CONTRACT
W. L. CAREY, GENERAL CONTRACTOR, INC.

BIDDING DOCUMENTS

CONTRACT DOCUMENTS, AND CONSTRUCTION SPECIFICATIONS

for constructing

SEWERAGE SYSTEM IMPROVEMENTS

CONTRACT "G"

DIVISION ONE AND DIVISION TWO

for

THE CITY OF ATHENS, GEORGIA

UPSHAW C. BENTLEY, JR., MAYOR

CITY COUNCIL

W. Calvin Bridges	Robert H. Kimbrell
Robert H. Carson	Wallace E. Reeves
Dwain P. Chambers	Lewis Shropshire, Jr.
Bryan C. Craft	John E. Taylor
George M. Hester	Edward L. Turner

William T. Cook, Jr. - Administrative Assistant
H. L. Pittard - City Engineer
Joseph J. Gaines - City Attorney

EPA Project No. C130351

351
G

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

FEBRUARY, 1976

EXECUTED CONTRACT
W. L. CAREY, GENERAL CONTRACTOR, INC.

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WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

FEBRUARY, 1976

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https://archive.org/details/contractsspecifi00publ_18

ADDENDUM NOTICE NO. ONE

PLANS, SPECIFICATIONS AND OTHER DOCUMENTS

FOR

SEWERAGE SYSTEM IMPROVEMENTS

CONTRACT "G"

DIVISIONS ONE AND TWO

EPA PROJECT NO. C130339

DATED FEBRUARY, 1976

Sealed Proposals to be received until 2:30 P.M., Local Time

SPECIFICATIONS

Section 3 Page 3-2 Paragraph 3.02 Sub-Paragraph (f)	Add to last sentence after Koppers Company, Inc.; "equal product of Indurall or approved equal."
Page 3-2 Paragraph 3.03 Sub-Paragraph (f)	Add to last sentence after Koppers standard thick; "equal product of Indurall or approved equal."
Section 4 Page 4-1 Paragraph 4.02 Sub-Paragraph (a)	Delete the following words from the second sentence: "shall be Master Builders 'Pozzolith', or approved equivalent, and".
Section 5 Page 5-1 Paragraph 5.05 Sub-Paragraph (a)	Add the following: "Manufacturers and/or equipment which does not meet the specified experience period will be considered if the manufacturer or supplier provides a bond or cash deposit which will guarantee replacement of the equipment or process in the event of failure or unsatisfactory service. The period of time for which the bond or cash deposit is required shall be the same as the experience period of time specified."
Page 5-5 Paragraph 5.05 Sub-Paragraph (f) Sub-Subparagraph.(3)	Add to first sentence after 70B Enamel:, "equal product of Indurall,".
Section 6 Page 6-1 Paragraph 6.02	Add to first sentence after Norwalk, Connecticut,: "equal product of Peabody Barnes Company."

Page 6-2 Paragraph 6.02 Sub-Paragraph (f)	Add to first sentence after "Inertol Rust Inhibitive Primer 621", "equal product of Indurall."
Page 6-2 Paragraph 6.03	At end of first sentence add: "or approved equal". At end of second paragraph add: "equal product of Indurall, or approved equal." Change last sentence to read: "Cast iron pipe and fittings shall not be field painted."

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

March 10, 1976

ADDENDUM NOTICE NO. TWO

PLANS, SPECIFICATIONS AND OTHER DOCUMENTS

FOR

SEWERAGE SYSTEM IMPROVEMENTS

CONTRACT "G"

DIVISIONS ONE AND TWO

EPA PROJECT NO. C130351

DATED FEBRUARY, 1976

Sealed Proposals to be received until 2:30 P.M., Local Time, August 25, 1977.

PLANS AND SPECIFICATIONS ISSUED FOR THIS PROJECT ARE HEREBY AMENDED IN ACCORDANCE WITH ADDENDA GIVEN IN THE FOLLOWING. ALL PROPOSALS WILL BE SUBJECT TO THE PROVISIONS OF THESE ADDENDA. ALL BIDDERS SHALL ATTACH THIS ADDENDUM TO PROPOSAL.

SPECIFICATIONS

Addendum No. One	Change Project No. to read: "EPA Project No. C130351"
Specifications General:	At any place the words "or approved equal" appear, change to read "or equal".
Advertisement for Bids Page AB-3	Minimum wage rate schedule accompanies this Addendum.
Instructions to Bidders Pages IB-10 to IB-14, inclusive. 40 CFR, Sections 35.938 and 35.939	Delete in their entirety and add 40 CFR, Sections 35.936, 35.938 and 35.939 attached hereto.
Proposal Page P-19	Change Division One and Two, 420 consecutive calendar days to read: Division One and Two, 700 consecutive calendar days.

General Conditions Page GC-24 Paragraph 41	Replace first paragraph with the following: There are a number of trees shown on the drawings which have been designated "significant" trees by a forester. These trees shall be protected by the Contractor. In addition to the trees shown on the drawings, there are numerous large trees within the construction right-of-way. The Contractor shall make every effort to save as many of these trees as possible. Before commencing any work under this contract, the Contractor shall arrange for an on-site meeting with the Owner for the purpose of establishing specific trees and plants to be saved. Clearing and grubbing operations shall be reviewed with and must have the approval of the Owner. Trees or plants to remain shall not be injured or defaced. Excavation within the branch spread of trees to remain shall be performed in a manner that will cause the least damage to roots. Injured roots shall be pruned cleanly and backfilled as soon as possible. The trees which are shown on the drawings are valued at $200 per inch diameter measured breast high and the Contractor shall pay to the Owner an amount for each tree that has been damaged due to carelessness or unreasonable construction methods. The value of trees stated above shall in no way limit the Contractor's liability to indemnify and save harmless the Owner as set fort elsewhere in the Contract Documents.
General Conditions Page GC-24 Paragraph 43	Replace second sentence with the following: Those sites which have been classified as significant consist of three prehistoric sites adjacent to, but not on the construction right-of-way and three historic mill sites within the construction right-of-way. The approximate location of theses sites are shown on the attached maps and are designated 9CA47, 9CA48, 9CA53, Puryears Mill, Sykes Mill and Epps Gin.
General Conditions Page GC-26 Paragraph 2	Sections 40 CFR 30.605, 30.805, 35.935-7 and 35.938-5 are available from the Engineers upon request.
Section 5 Page 5-6 Paragraph 5.06 Sub-Paragraph (a)	In first sentence after mechanical joint, add or push-on joint.

Section 5 Cont'd
Page 5-10
Paragraph 5-18
Sub-Paragraph (e)

Add the following:

The price limits for rock excavation stated above have been established in order to provide a better comparison of bids. Should the Contractor feel this price is inadequate, he should adjust other unit prices in his bid to reflect the difference. The quantity of rock shown in the Proposal is an estimate based on a percentage of total excavation and is not based on test drillings. The Contractor shall investigate the work and determine for himself the actual quantity of rock he expects to encounter and should it differ from the quantity shown, adjust other unit prices in his bid to reflect the difference.

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

AUGUST 11, 1977

U. S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION

REQUEST FOR DETERMINATION AND RESPONSE TO REQUEST

(Davis Bacon Act as Amended and Related Statutes).

FOR DEPARTMENT OF LABOR USE

Response To Request

a. ☐ Use area determination issued for this area

b. ☑ The attached decision noted below is applicable to this project

Decision Number: 77-GA-273

Date of Decision: 7-20-77

Expires: 11-16-77

Supersedes Decision Number:

Approved

Director
Division of Construction
Wage Determinations
Wage and Hour Division

Requesting Officer (typed name and signature)
Mrs. Vickie L. Dunken, Grants Assistant

Department, Agency, or Bureau: U. S. Environmental Protection Agency

Phone Number: 404/526-3633

Date of Request: 6/21/77

Est. Advertising Date: 6/24/77

Est. Bid Opening Date: 8/23/77

Prior Decision Number (if any):

Est. $ Value of Contract: ☐ Under ½ Mil. ☒ 1 to 5 Mil. ☐ ½ to 1 Mil. ☐ Over 5 Mil.

Type of Work: ☒ Bldg. ☐ Highway ☐ Resid. ☒ Heavy

Location of Project (city or other description): City of Athens C130351-03-0

County: Clarke

State: Georgia

Address to which wage determination should be mailed. Must be complete and include ZIP Code. (Print or type)

Attn: Raymond L. Cook, P.E.
U. S. Environmental Protection Agency
Region IV, Water Division
345 Courtland Street, N.E.
Atlanta, Georgia 30308

Wage Survey by Agency Attached: ☐ YES ☒ NO

Wage Survey by Agency in Progress: ☐ YES ☒ NO

Description of Work (Be specific) (Print or type)

One pumping station & various interceptor sewers (contract G)

CHECK OR LIST CRAFTS NEEDED
(Attach continuation sheet if needed)

- __ Asbestos workers
- __ Boilermakers
- __ Bricklayers
- __ Carpenters
- X Cement masons
- X Electricians
- __ Glaziers
- __ Ironworkers
- X Laborers, *(specify classes)*
- X (Jackhammer and Vibrator)
- X Pipelayers (Concrete, Clay and Cast Iron)
- __ Lathers
- __ Marble & tile setters, terrazzo workers
- X Painters
- __ Piledrivermen
- __ Plasterers
- X Plumbers
- __ Roofers
- __ Sheet metal workers
- __ Soft floor layers
- __ Steamfitters
- X Welders--rate for craft
- X Truck drivers
- X Power equipment operators, *(specify types)*
- X Bulldozer
- X Trenching Machines
- X Backhoe

Other crafts
- X Manhole Builder

(THIS REPLACES FORMS DB-11 & DB-11a)

GPO : 1972 O - 471-927

STANDARD FORM- 308 JUNE 1972
U.S. DEPARTMENT OF LABOR
(29 CFR) Subtitle A, Part 5

Building Construction

	Basic Hourly Rates	Fringe Benefits Payments				
		H & W	Pensions	Vacation	App. Tr.	Ot
Air conditioning mechanic	4.25					
Bricklayers	6.09					
Carpenters	4.75					
Cement masons	5.42					
Dry wall finisher	4.96					
Millwrights	8.85					
Electricians	9.55	6%	7% + 1%		.5%	
Glaziers	3.45					
Ironworkers:						
Structural, Ornamental & Reinforcing	5.03					
Laborers:						
Unskilled	2.46					
Mason tenders	2.50					
Mortar mixers	2.50					
Pipelayers, concrete & clay	2.50					
Painters, brush	5.00					
Marble & tile setters, terrazzo workers	5.00					
Plumbers	6.99					
Roofers	3.50					
Sheet metal workers	5.17					
Soft floor layers	4.00					
Truck drivers	2.56					
Welders - rate for craft.						
POWER EQUIPMENT OPERATORS:						
Air compressors	3.60					
Asphalt rollers	2.48					
Asphalt spreaders	2.65					
Bulldozers	3.00					
Cranes, derricks, draglines	6.15					
Drill rig	5.54					
Forklift	3.50					
Front end loader	4.00					
Motor grader	4.00					
Oilers	4.93					

Heavy Constructio	Basic Hourly Rates	Fringe Benefits Payments				
		H & W	Pensions	Vacation	App. Tr.	Othe
Asphalt raker	$2.76					
Carpenter	3.42					
Carpenters' helper	2.40					
Concrete finisher (cement mason)	3.30					
Concrete finisher (cement masons) helper	3.00					
Drill operator	2.88					
Formsetter	2.92					
Ironworker, reinforcing	3.10					
Laborer	2.37					
Mason,structure (bricklayer,brick mason)	2.50					
Oiler-greaser	2.50					
Painter	5.00					
Piledrivermen (piledriver leadsman)	2.85					
Pipelayer	2.56					
Power tool operator (includes air tools chainsaws, power saws, etc.)	2.75					
Rodman (chainman)	2.85					
Truck drivers:						
Single rear axle or 2½ tons & less	2.45					
Multi rear axle or over 2½ tons	2.82					
Welder	4.00					
POWER EQUIPMENT OPERATORS:						
Asphalt distributor	2.90					
Asphalt paving machine (asphalt screed, asphalt spreader)	2.83					
Backhoes:						
¼ c.y. or less	2.75					
over ¼ c.y.	3.00					
Bulldozer	3.19					
Concrete mixer	2.78					
Concrete paving machine(inc.slip form)	3.25					
Concrete paving saw	3.00					
Crane, derricks, draglines	3.94					
Front end loaders:						
1 c.y. or less	2.75					
over 1 c.y.	3.00					
Mechanic	3.45					
Mechanic helper	2.50					
Motor grader (motor partol)	3.50					
Paint striping machine (liner, spray machine)	3.00					
Pile driver	3.50					
Roller	2.50					
Scraper (pan)	3.05					
Shovel	3.50					
Stone spreader (aggregate spreader)	2.84					

POWER EQUIPMENT OPERATORS (Con't)	Basic Hourly Rates	Fringe Benefits Payments				
		H & W	Pensions	Vacation	App. Tr.	Others
Tractors:						
80 h.p. & less (farm type, crawler)	$2.42					
Over 80 h.p. (farm type, crawler)	3.00					

Part 35 of Title 40 of the Code of Federal Regulations is amended by deleting existing §§ 35.938 through 35.939 and adding new §§ 35.936 through 35.939 and § 35.965, which sections shall read as follows:

AUTHORITY: Secs. 109(b), 201 through 205, 207, 210 through 212, and 501(a), 502, and 511 of Pub. L. 92-500 (86 Stat. 816; 33 U.S.C. 1251) as amended by Pub. L. 93-243.

§ 35.936 Procurement.

(a) Sections 35.936 through 35.939 set forth policies and minimum standards for procurement of architectural or engineering services as defined in § 35.937 and construction contracts as described in § 35.938 by grantees under all steps of grants for construction of treatment works. Acquisition of real property shall be conducted in accordance with Part 4, Subpart F of this chapter. Other procurements of goods and services shall be conducted in accordance with the provisions of Part 33 of this subchapter.

(b) This subpart does not apply to work beyond the scope of the project for which grant assistance is awarded (i.e., ineligible work).

§ 35.936–1 Definitions.

As used in §§ 35.936 through 35.939, the following words and terms shall have the meaning set forth below. All terms not defined herein shall have the meaning given to them in § 30.135 of this subchapter, and in § 35.905.

(a) *Grant agreement.* The written agreement and amendments thereto between EPA and a grantee in which the terms and conditions governing the grant are stated and agreed to by both parties pursuant to § 30.345 (Award of grant) of this subchapter.

(b) *Subagreement.* A written agreement between an EPA grantee and another party (other than another public agency) and any tier of agreement thereunder for the furnishing of services, supplies, or equipment necessary to complete the project for which a grant was awarded, including contracts and subcontracts for personal and professional services and purchase orders. (See §§ 35.937–12 and 35.938–9 regarding subcontracts of any tier under prime contracts for architectural or engineering services or construction awarded by the grantee—generally applicable only to subcontracts in excess of $10,000.)

(c) *Contractor.* The party to whom a subagreement is awarded.

(d) *Grantee.* Any municipality which has been awarded a grant for construction of a treatment works pursuant to this subpart. In addition, where appropriate in §§ 35.936 through 35.939, the designation grantee may also refer to an applicant for such a grant.

§ 35.936–2 Grantee procurement systems; State or local law.

(a) Grantees may use their own procurement systems and procedures which meet applicable requirements of State, territorial or local laws and ordinances to the extent that such systems and procedures do not conflict with minimum requirements set forth in this subchapter.

(b) State or local laws, ordinances, regulations or procedures which are designed to or operate to give local or in-State bidders or proposers preference over other bidders or proposers shall not be employed in evaluating bids or proposals for subagreements under a grant.

§ 35.936–3 Competition.

It is the policy of the Environmental Protection Agency to encourage free and open competition appropriate to the type of project work to be performed.

§ 35.936–4 Profits.

Only fair and reasonable profits may be earned by contractors in subagreements under EPA grants. See § 35.937–7 (Profit) for discussion of profits under negotiated subagreements for architectural or engineering services, and § 35.938–5(f) for discussion of profits under negotiated change orders to construction contracts. Profit included in a formally advertised, competitively bid, fixed price construction contract awarded pursuant to § 35.938 is presumed to be reasonable.

§ 35.936–5 Grantee responsibility.

(a) The grantee is responsible for the administration and successful accomplishment of the project for which EPA grant assistance is awarded. The grantee is responsible for the settlement and satisfaction of all contractual and administrative issues arising out of subagreements entered into under the grant (except as provided in § 35.936–6 (EPA responsibility) below) in accordance with sound business judgment and good administrative practice. This includes (but is not limited to) issuance of invitations for bids or requests for proposals, selection of contractors, award of contracts, protests of award, claims, disputes, and other related procurement matters.

(b) With the prior written approval of the Regional Administrator, these functions may be performed for the grantee by an individual or firm retained for the purpose. Such an agent acts for the grantee and is subject to the provisions of this subpart applicable to the grantee.

§ 35.936–6 EPA responsibility.

Generally, EPA is responsible only for reviewing grantee compliance with Federal requirements applicable to a grantee's procurement. However, where specifically provided in this chapter, EPA is responsible for making the determination concerning compliance with Federal requirements.

§ 35.936–7 Small and minority business.

Positive efforts shall be made by grantees to utilize small business and minority-owned business sources of supplies and services. Such efforts should allow these sources the maximum feasible opportunity to compete for subagreements and contracts to be performed utilizing Federal grant funds.

§ 35.936–8 Privity of contract.

Neither the Environmental Protection Agency nor the United States shall be a party to any subagreement (including contracts or subcontracts), nor to any solicitation or request for proposals therefor. (See §§ 35.937–9(a), 35.938– (c)(5) and Appendixes C–1 and C–2 to this subpart for the required solicitation statement and contract provisions.)

§ 35.936–9 Disputes.

Only an EPA grantee may initiate and prosecute an appeal to the Administrator under the disputes provision of a grant with respect to its subagreements thereunder for its own name and benefit (see Subpart J of Part 30 of this subchapter). Neither a contractor nor a subcontractor of a grantee may prosecute an appeal under the disputes provisions of a grant in its own name or interest.

§ 35.936–10 Federal procurement regulations.

Regulations applicable to direct Federal procurement shall not be applicable to subagreements under grants except as stated in this subchapter.

§ 35.936–11 General requirements for subagreements.

Subagreements must:

(a) Be necessary for and directly related to the accomplishment of the project work;

(b) Be in the form of a bilaterally executed written agreement (except for small purchases of $10,000 or less);

(c) Be for monetary or in-kind consideration; and

(d) Not be in the nature of a grant or gift.

§ 35.936–12 Documentation.

(a) Procurement records and files for purchases in excess of $10,000 shall include the following:

(1) Basis for contractor selection;

(2) Justification for lack of competition if competition appropriate to the type of project work to be performed is required but not obtained; and

(3) Basis for award cost or price.

(b) Procurement documentation required by § 30.805 (Records) of this subchapter and by this subpart, including a copy of each subagreement, must be retained by the grantee or contractors of the grantee for the period of time specified in § 30.805 (Records) of this subchapter and is subject to all the requirements of § 30.805 of this subchapter. A copy of each subagreement must be furnished to the Project Officer upon request.

§ 35.936–13 Specifications.

(a) *Nonrestrictive specifications.* (1) No specification for bids or statement of work in connection with such works shall be written in such a manner as to contain proprietary, exclusionary, or discriminatory requirements other than those based upon performance, unless such requirements are necessary to test or demonstrate a specific thing or to provide for necessary interchangeability of

parts and equipment, or at least two brand names or trade names of comparable quality or utility are listed and are followed by the words "or equal." The single base bid method of solicitation for equipment and parts for determination of a low responsive bidder may not be utilized. With regard to materials, if a single material is specified, the grantee must be prepared to substantiate the basis for the selection of the material.

(2) Project specifications shall, to the extent practicable, provide for maximum use of structures, machines, products, materials, construction methods, and equipment which are readily available through competitive procurement, or through standard or proven production techniques, methods, and processes, except to the extent that advanced technology may be utilized pursuant to § 35.908.

(b) *Sole source restriction.* A specification shall not require the use of structures, materials, equipment, or processes which are known to be available only from a sole source, unless such use has been adequately justified in writing by the grantee's engineer as meeting the minimum needs of the particular project.

(c) *Experience clause restriction.* The general use of experience clauses requiring equipment manufacturers to have a record of satisfactory operation for a specified period of time or of bonds or deposits to guarantee replacement in the event of failure is restricted to special cases where the grantee's engineer adequately justifies any such requirement in writing. Where such justification has been made, submission of a bond or deposit shall be permitted in lieu of a specified experience period, and the period of time for which such bond or deposit is required should not exceed the experience period specified.

§ 35.936-14 Force account work.

(a) A grantee must secure prior written approval of the Project Officer for utilization of the force account method in lieu of subagreement for any step 1 or step 2 work in excess of $10,000 or any step 3 work in excess of $25,000 unless the force account method is stipulated in the grant agreement.

(b) The Project Officer's approval shall be based on the grantee's certification that he possesses the necessary competence required to accomplish such work and (1) the work can be accomplished more economically by the use of the force account method, or (2) emergency circumstances so dictate.

§ 35.936-15 Limitations on subagreement award.

No subagreement shall be awarded:

(a) To any person or organization which does not meet the responsibility standards set forth in § 30.340-2(a) through (d) and (g) (Standards) of this subchapter;

(b) If any portion of the contract work not exempted by § 30.420-3(b) of this subchapter will be performed at a facility listed by the Director, EPA Office of Federal Activities, in violation of the antipollution requirements of the Clean Air Act and the Federal Water Pollution Control Act, as set forth in § 30.420-3 (Prohibition against violating facilities) of this subchapter and Part 15 of this chapter (Administration of the Clean Air Act and the Federal Water Pollution Control Act With Respect to Federal Contracts, Grants or Loans); or

(c) To any person or organization which is ineligible pursuant to the conflict of interest requirements of § 30.420-4 (Conflict of interest) of this subchapter.

§ 35.936-16 Code or standards of conduct.

(a) The grantee must maintain a code or standards of conduct which shall govern the performance of its officers, employees, or agents in the conduct of project work, including procurement and the expending of project funds. The grantee's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contractors or potential contractors. The grantee must avoid personal or organizational conflicts of interest or noncompetitive procurement practices which restrict or eliminate competition or otherwise restrain trade.

(b) To the extent permissible by State or local law or formal institutional requirements and procedures, such standards shall provide for penalties, sanctions, or other adequate disciplinary actions to be instituted for project-related violations of law or of such code or standards of conduct by either the grantee officers, employees, or agents, or by contractors or their agents.

(c) The grantee must inform the Project Officer in writing of each serious allegation of a project-related violation or known or proven project-related violation of law or code or standards of conduct, by its officers, employees, contractors, or by their agents, and of the prosecutive or disciplinary action taken by the grantee with respect to such infractions, and must cooperate with Federal officials with respect to any Federal prosecutive or disciplinary actions instituted with respect to such infractions. Pursuant to § 30.245 (Fraud and other unlawful or corrupt practices) of this subchapter, the Project Officer must notify the Director, EPA Security and Inspection Division, of all such notifications from the grantee.

(d) EPA shall cooperate with the grantee with respect to its disciplinary or prosecutive actions taken with respect to any apparent project-related violations of law or of the grantee's code or standards of conduct.

§ 35.936-17 Fraud and other unlawful or corrupt practices.

All procurements under grants are covered by the provisions of § 30.245 of this subchapter relating to fraud and other unlawful or corrupt practices.

§ 35.936-18 Negotiation of subagreements.

(a) Formal advertising, with adequate purchase description, sealed bids and public openings shall be the required method of procurement unless negotiation pursuant to paragraph (b) of this section is necessary to accomplish sound procurement.

(b) All negotiated procurement shall be conducted in a manner to provide to the maximum practicable extent open and free competition appropriate to the type of project work to be performed. Negotiation of subagreements by the grantee is authorized in accordance with the applicable procedures of this subchapter if any of the following conditions are applicable:

(1) Public exigency will not permit the delay incident to formally advertised procurement (e.g., an emergency procurement).

(2) The aggregate amount involved does not exceed $10,000 (see § 35.936-19 for small purchases).

(3) The material or service to be procured is available from only one person or entity. If the procurement is expected to aggregate more than $10,000, the grantee must document its file with a justification of the need for noncompetitive procurement, and provide such documentation to the Project Officer on request.

(4) The procurement is for personal or professional services (including architectural or engineering services) or for any service to be rendered by a university or other educational institution.

(5) No responsive, responsible bids at acceptable price levels have been received after formal advertising, and, with respect to procurement under § 35.938-4 (Formal advertising), prior written approval of the Regional Administrator has been obtained.

(6) The procurement is for materials or services where the prices are established by law.

(7) The procurement is for technical items or equipment requiring standardization and interchangeability of parts with existing equipment.

(8) The procurement is for experimental, developmental or research services.

§ 35.936-19 Small purchases.

(a) A small purchase is the procurement of materials, supplies, and services when the aggregate amount involved in any one transaction does not exceed $10,000. The small purchase limitation of $10,000 applies to the aggregate total of an order, including all estimated handling and freight charges, overhead, and profit to be paid under the order. In arriving at the aggregate amount involved in any one transaction, there must be included all items which should properly be grouped together. Reasonable competition shall be obtained.

(b) Subagreements for small purchases need not be in the form of a bilaterally executed written agreement. Where appropriate, unilateral purchase orders, sales slips, memoranda of oral price quotations, and the like may be utilized in the interest of minimizing paperwork. Retention in the purchase files of these documents and of written quotations received, or references to catalogs or printed price lists used, will suffice as the record supporting the price paid.

§ 35.936–20 Allowable costs.

(a) Incurring costs under subagreements which are not awarded or administered in compliance with this part or Part 33 of this subchapter, as appropriate, shall be cause for disallowance of those costs under the grant.

(b) Appropriate cost principles applicable to subagreements under EPA grants are identified in § 30.710 (Federal cost principles) of this subchapter. Pursuant to that section, the contractor's actual costs, direct and indirect, eligible for Federal participation in a cost reimbursement contract shall be those allowable under the applicable provisions of 41 CFR 1–15.2 (Principles and Procedures for Use in Cost-Reimbursement Type Supply and Research Contracts With Commercial Organizations) and 1–15.4 (Construction and Architect-Engineer Contracts).

(c) Reasonable costs of compliance with the procurement requirements of these regulations are allowable costs of administration under the grant. Costs of announcement and selection of a consulting engineer are allowable, even when the announcement is conducted prior to award of the grant.

§ 35.936–21 Delegation to State agencies; certification of procurement systems.

(a) In accordance with § 35.912 (Delegation to State agencies), EPA may include in a written agreement with a State agency certification of the technical and administrative adequacy of procurement documentation required to be submitted to EPA pursuant to these sections.

(b) In those cases where a State agency believes that State laws which govern municipal procurement include the same requirements or operate to provide the same protections as do §§ 35.936, 35.937 and 35.938, the State may request the Administrator to approve the State system as used by municipalities in lieu of the procedures of these sections. EPA shall review the State system to determine its adequacy.

(c) In those cases where a State agency determines that an applicant's procurement ordinances or applicable statutes include the same requirements or operate to provide the same protections as do §§ 35.936, 35.937 and 35.938, the State may certify (accompanied by appropriate documentation) the adequacy of the municipality's ordinances and statutes and request the Administrator to approve the municipality's system in lieu of the procedures of these sections. EPA shall conduct or may request the State to conduct a review of the municipality's system to determine its adequacy.

§ 35.938 Construction contracts (subagreements) of grantees.

§ 35.938–1 Applicability.

This section applies to construction contracts (subagreements) in excess of $10,000 awarded by grantees for any Step 3 project.

§ 35.938–2 Performance by contract.

The project work shall be performed under one or more contracts awarded by the grantee to private firms, except for force account work authorized by § 35.936–14.

§ 35.938–3 Type of contract.

Each contract shall be a fixed price (lump sum or unit price or a combination of the two) contract, unless the Regional Administrator gives advance written approval for the grantee to use some other acceptable type of contract. The cost-plus-percentage-of-cost type of contract shall not be used in any event.

§ 35.938–4 Formal advertising.

Each contract shall be awarded after formal advertising, unless negotiation is permitted in accordance with § 35.936–18. Formal advertising shall be in accordance with the following:

(a) *Adequate public notice.* The grantee will cause adequate notice to be given of the solicitation by publication in newspapers or journals of general circulation beyond the grantee's locality (Statewide, generally), inviting bids on the project work, and stating the method by which bidding documents may be obtained and/or examined. Where the estimated cost of Step 3 construction is ten million dollars or more, such notice must generally be published in trade journals of Nationwide distribution. The grantee should, in addition, solicit bids directly from bidders if it maintains a bidders list.

(b) *Adequate time for preparing bids.* Adequate time, generally not less than 30 days, must be allowed between the date when public notice pursuant to paragraph (a) of this section is first published and the date by which bids must be submitted. Bidding documents (including specifications and drawings) shall be available to prospective bidders from the date when such notice is first published.

(c) *Adequate bidding documents.* A reasonable number of bidding documents (invitations for bid) shall be prepared by the grantee and shall be furnished upon request on a first-come, first-served basis. A complete set of bidding documents shall be maintained by the grantee and shall be available for inspection and copying by any party. Such bidding documents shall include:

(1) A complete statement of the work to be performed, including necessary drawings and specifications, and the required completion schedule. (Drawings and specifications may be made available for inspection and purchase instead of being furnished.);

(2) The terms and conditions of the contract to be awarded;

(3) A clear explanation of the method of bidding and the method of evaluation of bid prices, and the basis and method for award of the contract;

(4) Responsibility requirements or criteria which will be employed in evaluating bidders;

(5) The following statement:

> Any contract or contracts awarded under this Invitation for Bids are expected to be funded in part by a grant from the United States Environmental Protection Agency. Neither the United States nor any of its departments, agencies or employees is or will be a party to this Invitation for Bids or any resulting contract. This procurement will be subject to regulations contained in 40 CFR 35.936, 35.938, and 35.939.;

and

(6) A copy of §§ 35.936, 35.938 and 35.939.

(d) *Sealed bids.* The grantee shall provide for bidding by sealed bid and for the safeguarding of bids received until public opening.

(e) *Addenda to bidding documents.* If a grantee desires to amend any part of the bidding documents (including drawings and specifications) during the period when bids are being prepared, the addenda shall be communicated in writing to all firms which have obtained bidding documents in time to be considered prior to the bid opening time.

(f) *Bid modifications.* A firm which has submitted a bid shall be allowed to modify or withdraw its bid prior to the time of bid opening.

(g) *Public opening of bids.* The grantee shall provide for a public opening of bids at the place, date and time announced in the bidding documents.

(h) *Award to the low, responsive, responsible bidder.* (1) After bids are opened, they shall be evaluated by the grantee in accordance with the methods and criteria set forth in the bidding documents.

(2) The grantee may reserve the right to reject all bids. Unless all bids are rejected, award shall be made to the low, responsive, responsible bidder.

(3) If award is intended to be made to a firm which did not submit the lowest bid, a written statement shall be prepared prior to any award and retained by the grantee explaining why each lower bidder was deemed nonresponsible or not responsive.

(4) State or local laws, ordinances, regulations or procedures which are designed or which operate to give local or in-State bidders preference over other bidders shall not be employed in evaluating bids.

§ 35.938–5 Negotiation of contract amendments (change orders).

(a) *Grantee responsibility.* Grantees are responsible for negotiation of construction contract change orders. This function may be performed by the grantee directly or, if authorized, by his engineer. During negotiations with the contractor the grantee shall:

(1) Make certain that the contractor has a clear understanding of the scope and extent of work and other essential requirements;

(2) Assure that the contractor demonstrates that he will make available or will obtain the necessary personnel, equipment and materials to accomplish the work within the required time; and

(3) Assure a fair and reasonable price for the required work.

(b) *Changes in contract price or time.* The contract price or time may be changed only by a change order. When negotiations are required, they shall be conducted in accordance with paragraph (c) or (d) of this section, as appropriate. The value of any work covered by a change order or of any claim for increase or decrease in the contract price shall be determined by the method set forth in paragraphs (b)(1) through (b)(3) of this section which is most advantageous to the grantee.

(1) Unit prices. (i) Original bid items. Unit prices previously approved are acceptable for pricing changes of original bid items. However, when changes in quantities exceed 15 percent of the original bid quantity and the total dollar change of that bid item is significant, the unit price shall be reviewed by the grantee to determine if a new unit price should be negotiated.

(ii) New items. Unit prices of new items shall be negotiated.

(2) A lump sum to be negotiated.

(3) Cost reimbursement—the actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work plus an amount to be agreed upon to cover the cost of general overhead and profit to be negotiated.

(c) For each change order not in excess of $100,000 the contractor shall submit sufficient cost and pricing data to the grantee to enable the grantee to determine the necessity and reasonableness of costs and amounts proposed, and the allowability and eligibility of costs proposed.

(d) For each change order in excess of $100,000, the contractor shall submit to the grantee for review sufficient cost and pricing data as described in paragraphs (d)(1) through (d)(6) of this section to enable the grantee to ascertain the necessity and reasonableness of costs and amounts proposed, and the allowability and eligibility of costs proposed.

(1) As a minimum, proposed change order costs shall be presented in summary format prescribed by the Administrator and shall be supported by a certification executed by the contractor that proposed costs reflect complete, current and accurate cost and pricing data applicable to the date of the change order.

(2) In addition to the specific elements of cost, the estimated amount of profit shall be set forth separately in the cost summary for fixed price change orders and a specific total dollar amount of profit will be set forth separately in the cost summary for cost reimbursement change orders.

(3) More detailed cost data than that required by the summary format may be required by the grantee to substantiate the reasonableness of proposed change order costs. Such detailed documentation is normally required by EPA only when the contractor is unable to certify that proposed change order costs are complete, current and accurate. EPA, may, on a selected basis, perform a detailed cost analysis on any change order. Normally, a provisional overhead rate will be agreed upon.

(4) Appropriate consideration should be given to § 30.710 of this subchapter which contains general cost principles which must be used for the determination and allowability of costs under grants. The contractor's actual costs, direct and indirect, allowable for Federal participation shall be determined in accordance with the terms and conditions of the contract, this subpart and the cost principles included in 41 CFR 1–15.2 and 1–15.4. Examples of costs which are not allowable under those cost principles include, but are not limited to, entertainment, interest on borrowed capital and bad debts.

(5) For costs under cost reimbursement change orders, the contractor shall have an accounting system which accounts for such costs in accordance with generally accepted accounting principles. This system shall provide for the identification, accumulation and segregation of allowable and unallowable change orders. Allowable change order costs shall be determined in accordance with paragraph (d)(1) of this section. The contractor must propose and account for such costs in a manner consistent with his normal accounting procedures.

(6) Change orders awarded on the basis of review of a cost element summary and a certification of complete, current and accurate cost and pricing data shall be subject to downward renegotiation or recoupment of funds where subsequent audit substantiates that such certification was not based on complete, current and accurate cost and pricing data and on costs allowable under the appropriate FPR cost principles (41 CFR 1–15.2 and 1–15.4) at the time of change order execution.

(e) *EPA review.* In addition to the requirements of §§ 35.935–10 (Copies of contract documents) and 35.935–11 (Project changes), the grantee shall submit, prior to the execution of any change order in excess of $100,000, to the EPA Project Officer for review:

(1) The cost and pricing data submitted by the contractor,

(2) A certification of review and acceptance of the contractor's cost or price, and

(3) A copy of the proposed change order.

(f) *Profit.* The objective of negotiations shall be the exercise of sound business judgment and good administrative practice including the determination of a fair and reasonable profit based on the contractor's assumption of risk and input to total performance and not merely the application of a predetermined percentage factor. For the purpose of negotiated change orders to construction contracts under EPA grants, profit is defined as the net proceeds obtained by deducting all allowable costs (direct and indirect) from the price. The estimate of profit should be reviewed by the grantee as are all other elements of price.

(g) *Related work.* Related work shall not be split into two amendments or change orders merely to keep it under $100,000 and thereby avoid the requirements of paragraph (d) of this section. For change orders which include both additive and deductive items:

(1) If any single item (additive or deductive) exceeds $100,000, the requirements of paragraph (d) of this section shall be applicable.

(2) If no single additive or deductive item has a value of $100,000, but the total price of the change order is over $100,000, the requirements of paragraph (d) of this section shall be applicable.

(3) If the total of additive items of work in the change order exceeds $100,000, or the total of deductive items of work in the change order exceeds $100,000, and the net price of the change order is less than $100,000, the requirements of paragraph (d) of this section shall apply.

§ 35.938–6 Progress payments to contractors.

(a) *Policy.* It is EPA policy that, except as may be otherwise provided by State law, prompt progress payments should be made by grantees to prime contractors and by prime contractors to subcontractors and suppliers for eligible construction, material, and equipment costs, including those of undelivered specifically manufactured equipment, incurred under a contract under an EPA construction grant.

(b) *Conditions of progress payments.* For purposes of this section, progress payments are defined as follows:

(1) Payments for work in place.

(2) Payments for materials or equipment which have been delivered to the construction site, or which are stockpiled in the vicinity of the construction site, in accordance with the terms of the contract, when conditional or final acceptance is made by or for the grantee. It is the grantee's responsibility to assure that items for which progress payments have been made are adequately insured and are protected through appropriate security measures. Costs of such insurance and security are allowable costs in accordance with § 35.940.

(3) Payments for undelivered specifically manufactured items or equipment (excluding off-the-shelf or catalog items), as work thereon progresses. Such payments must be made if provisions therefor are included in the bid and contract documents. Such provisions may be included at the option of the grantee only when all of the following conditions exist:

(i) The equipment is so designated in the project specifications;

(ii) The equipment to be specifically manufactured for the project could not be readily utilized on nor diverted to another job; and

(iii) A fabrication period of more than six months is anticipated.

(c) *Protection of progress payments made for specifically manufactured equipment.* The grantee will assure protection of the Federal interest in progress payments made for items or equipment referred to in paragraph (b)(3) of this section. This protection must be in a manner or form acceptable to the grantee and must take the form of (1) recordation under the Uniform Commercial Code adequate to protect the interest of the grantee and the government, or (2) securities negotiable without recourse, condition or restrictions, a progress payment bond or an irrevocable letter of credit provided to the grantee through the prime contractor by the subcontractor or supplier.

(d) *Limitations on progress payments for specifically manufactured equipment.* (1) Progress payments made for specifically manufactured equipment or items shall be limited to the following:

(i) A first payment upon submission by the prime contractor of shop drawings for the equipment or items in an amount not exceeding fifteen percent of the contract or item price plus appropriate and allowable higher-tier costs;

(ii) And, subsequent to the grantee's release or approval for manufacture, additional payments not more frequently than monthly thereafter up to seventy-five percent of the contract or item price plus appropriate and allowable higher-tier costs: *Provided*, That payment may also be made in accordance with the contract and grant terms and conditions for ancillary on-site work prior to delivery of the specifically manufactured equipment or items.

(2) In no case may progress payments for undelivered equipment or items pursuant to paragraph (d) (1) (i) or (ii) of this section be made in an amount greater than seventy-five percent of the cumulative incurred costs allocable to contract performance with respect to the equipment or items. Submission of a request for any such progress payments must be accompanied by a certification furnished by the fabricator of the equipment or item that the amount of progress payment claimed constitutes not more than seventy-five percent of cumulative incurred costs allocable to contract performance, and in addition, in the case of the first progress payment request, a certification that the amount claimed does not exceed 15 percent of the contract or item price quoted by the fabricator.

(3) As used in this section, the term "costs allocable to contract performance" with respect to undelivered equipment or items includes all expenses of contract performance which are reasonable, allocable to the contract, consistent with sound and generally accepted accounting principles and practices consistently applied, and which are not excluded by the contract.

(e) *Enforcement.* A subcontractor or supplier which is determined by the Regional Administrator to have frustrated the intent of the provisions regarding progress payments for major equipment or specifically manufactured equipment through intentional forfeiture of its bond or failure to deliver the equipment may be determined nonresponsible and ineligible for further work under EPA grants.

(f) *Contract provisions.* Where applicable, appropriate provisions regarding progress payments must be included in each contract and subcontract. Grantees must use clauses acceptable to the EPA Regional Administrator.

(g) *Implementation.* The foregoing progress payments policy should be implemented in invitations for bids under Step 3 grants. If provision for progress payments is made subsequent to contract award, it must be for consideration which the grantee deems adequate.

§ 35.938–7 Retention from progress payments.

(a) The grantee may retain a portion of the amount otherwise due the contractor. Except as provided in paragraph (a) (4) of this section, the amount retained by the grantee shall be limited to the following:

(1) Withholding of not more than 10 percent of the payment claimed until work is 50 percent complete;

(2) When work is 50 percent complete, reduction of the withholding to 5 percent of the dollar value of all work satisfactorily completed to date: *Provided*, That the contractor is making satisfactory progress and there is no specific cause for greater withholding;

(3) When the work is substantially complete (operational or beneficial occupancy), the withheld amount shall be further reduced below 5 percent to only that amount necessary to assure completion.

(4) The grantee may reinstate up to 10 percent withholding if the grantee determines, at its discretion, that the contractor is not making satisfactory progress or there is other specific cause for such withholding.

(5) The grantee may accept securities negotiable without recourse, condition or restrictions, a release of retainage bond, or an irrevocable letter of credit provided by the contractor in lieu of all or part of the cash retainage.

(b) The foregoing retention policy shall be implemented with respect to all Step 3 projects for which plans and specifications are approved after March 1, 1976. Appropriate provision to assure compliance with this policy must be included in the bid documents for such projects initially or by addendum prior to the bid submission date, and as a special condition in the grant agreement or in a grant amendment. For all previous active projects, the foregoing policy may be implemented by the grantee through contract amendment upon written request to the grantee by the contractor upon consideration which the grantee deems adequate.

(c) Pursuant to § 30.620–3 (Interest earned on grant funds) of this subchapter, a grantee who delays disbursement of grant funds will be required to credit to the United States all interest earned on those funds.

§ 35.938–8 Required construction contract provisions.

(a) Each construction contract must include the "General Conditions" of the "Contract Documents for Construction of Federally Assisted Water and Sewer Projects," as revised.

(b) In addition, each construction contract must include the "Supplemental General Conditions" set forth in Appendix C–2 to this subpart.

§ 35.938–9 Subcontracts under construction contracts.

(a) The award or execution of subcontracts by a prime contractor under a construction contract awarded to the prime contractor by the grantee, and the procurement and negotiation procedures used by prime contractors in awarding or executing subcontracts are not required to comply with any of the provisions, selection procedures, policies or principles set forth in § 35.936 or § 35.938 except those specifically stated in this section. In addition, the bid protest procedures of § 35.939 are not available to parties executing subcontracts with prime contractors except as specifically provided in that section.

(b) The award or execution of subcontracts by a prime contractor under a formally advertised, competitively bid, fixed price construction contract awarded to the prime contractor by the grantee, and the procurement and negotiation procedures used by such prime contractors in awarding or executing such subcontracts must comply with the following:

(1) Section 35.936–2(b), (State and local law);

(2) Section 35.936–7, Small or minority business;

(3) Section 35.936–15(b), (prohibition against listed violating facilities); and

(4) Section 35.936–17, Fraud and other unlawful or corrupt practices.

(c) The award of subcontracts under construction contracts not described above in paragraph (b) of this section and the procurement and negotiation procedures of prime contractors on contracts not meeting that description must comply with paragraphs (b) (1) through (b) (4) of this section as well as the principles of § 35.938–5.

§ 35.939 Protests.

(a) *General.* A protest based upon an alleged violation of the procurement requirements of §§ 35.936 through 35.938–9 may be filed against a grantee's procurement action by a party with an adversely affected direct financial interest. Any such protest must be received by the grantee within the time period set forth in paragraph (b) (1) of this section. The grantee is responsible for resolution of the protest prior to the taking of the protested action, in accordance with paragraph (d) of this section, except as otherwise provided by paragraphs (j) and (k) of this section. The Regional Administrator will review grantee protest determinations in accordance with paragraph (e) of this section, if a timely request for such review is filed pursuant to paragraph (b) (2) of this section. In the case of protests which he determines are frivolous or without merit, the Regional Administrator may take such actions as are described in paragraphs (i) (2) and (k) of this section.

(b) *Time limitations.* (1) A protest pursuant to paragraph (d) of this section should be made as early as possible during the procurement process (for example, immediately after issuance of a solicitation for bids) to avoid disruption of or unnecessary delay to the procurement process. A protest authorized by paragraph (d) of this section must be received by the grantee within one week after the basis for the protest is known or should have been known, whichever is earlier (generally, in the case of formally advertised procurement, within one week after bid opening, if the basis for the protest is, or should have been, then known).

(2) A protest appeal authorized by paragraph (e) of this section must be received by the Regional Administrator within one week after the complainant has received the grantee's determination.

(3) If a protest is mailed, the complaining party bears the risk of nondelivery within the required time period. It is suggested that all documents transmitted pursuant to this section be mailed by certified mail (return receipt requested) or otherwise delivered in a manner which will objectively establish the date of receipt. Initiation of protest actions pursuant to paragraphs (d) or (e) of this section may be made by brief telegraphic notice accompanied by simultaneous mailing or other delivery of a more detailed statement of the basis for the protest. Telephonic protests will not be considered.

(c) *Other initial requirements.* (1) The initial protest document must briefly state the basis for the protest, and should (i) refer to the specific section(s) of this subpart which allegedly prohibit the procurement action, (ii) specifically request a determination pursuant to this section, (iii) identify the specific procurement document(s) or portion(s) thereof in issue, and (iv) include the name, telephone number, and address of the person representing the protesting party.

(2) The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the determination of the protest (generally, all bidders or proposers who appear to have a substantial and reasonable prospect of receiving an award if the protest is denied or sustained) and to the appropriate EPA Regional Administrator.

(d) *Grantee determination.* (1) The grantee is responsible for the initial resolution of protests based upon alleged violations of the procurement requirements of this subpart.

(2) Upon receipt of a timely written protest the grantee must:

(i) Afford the complaining party and interested parties an opportunity to present arguments in support of their views in writing or at a conference or other suitable meeting (such as a city council meeting);

(ii) Inform the complainant and other interested parties of the procedures which the grantee will observe for resolution of the protest;

(iii) Obtain an appropriate extension of the period for acceptance of the bid and bond(s) of each interested party, where applicable; failure to agree to a suitable extension of such bid and bid bond(s) by the party which initiated the protest shall be cause for summary dismissal of the protest by the grantee or the Regional Administrator; and

(iv) Promptly deliver (preferably by certified mail, return receipt requested, or by personal delivery) its written determination of the protest to the complaining party and to each other participating party.

(3) The grantee's determination must be accompanied by a legal opinion addressing issues arising under state, territorial, or local law (if any), and where Step 3 construction is involved, by an engineering report, if appropriate.

(4) The grantee should seek to resolve any such protest as promptly as possible—generally within three weeks after receipt of a protest, unless extenuating circumstances require a longer period of time for proper resolution of the protest.

(e) *Regional Administrator review.* (1) A party with a direct financial interest adversely affected by a grantee determination made pursuant to paragraph (d) of this section with respect to a procurement requirement of this subpart may submit a written request to the Regional Administrator for his review of such determination. Any such request must be in writing, must adequately state the basis for the protest (including reference to the specific section(s) of this subpart alleged to prohibit the procurement action), and must be received by the Regional Administrator within one week after the complaining party has received the grantee's determination of the protest. A copy of the grantee's determination and other documentation in support of the request for review shall be transmitted with the request.

(2) The Regional Counsel or his delegee will afford both the grantee and the complaining party, as well as any other party with a financial interest which may be adversely affected by determination of the protest, an opportunity to present arguments in support of their views in writing or at a conference at a time and place convenient to the parties as determined by the Regional Counsel or his delegee, and he shall thereafter promptly submit in writing his report and recommendations concerning the protest to the Regional Administrator.

(3) Any such conference should be held within not more than ten days after receipt of the request for review and the report should be transmitted to the Regional Administrator within ten days after the date set for receipt of the participants' written materials or for the conference. The Regional Administrator should transmit his determination of the protest with an adequate explanation thereof to the grantee and simultaneously to each participating party within one week after receipt of the report and recommendations. His determination shall constitute final agency action, from which there shall be no further administrative appeal. The Regional Counsel may extend these time limitations, where appropriate.

(f) *Procedures.* (1) Where resolution of an issue properly raised with respect to a procurement requirement of this subpart requires prior or collateral resolution of a legal issue arising under State or local law, and such law is not clearly established in published legal decisions of the State or other relevant jurisdiction, the grantee or Regional Administrator may rely upon:

(i) An opinion of the grantee's legal counsel adequately addressing the issue,

(ii) The established or consistent practice of the grantee, to the extent appropriate, or

(iii) The law of other States or local jurisdictions as established in published legal decisions, or

(iv) If none of the foregoing adequately resolve the issue, published decisions of the Comptroller General of the United States (U.S. General Accounting Office) or of the Federal courts addressing Federal requirements comparable to procurement requirements of this subpart.

(2) For the determination of Federal issues presented by the protest, the Regional Administrator may rely upon:

(i) Determinations of other protests decided under this section, unless such protests have been reversed, and

(ii) Published decisions of the Comptroller General of the United States or of the Federal courts addressing Federal requirements comparable to procurement requirements of this subpart.

(3) The Regional Counsel may establish additional procedural requirements or deadlines for the submission of materials by parties or for the accomplishment of other procedures. Where time limitations are established by this section or by the Regional Counsel, participants must seek to accomplish the required action as promptly as possible in the interest of expediting the procurement action.

(4) A party who submits a document subsequent to initiation of a protest proceeding pursuant to paragraph (d) or (e) of this section must simultaneously furnish each other party with a copy of such document.

(5) The procedures established by this section are not intended to preclude informal resolution or voluntary withdrawal of protests. A complainant may withdraw its appeal at any time, and the protest proceeding shall thereupon be terminated.

(6) The Regional Administrator may utilize appropriate provisions of this section in the discharge of his responsibility to review grantee procurement methods under § 35.935–2(a).

(g) *Burden of proof.* (1) In proceedings pursuant to paragraphs (d) and (e) of this section, if the grantee proposes to award a formally advertised, competitively bid, fixed price contract to a party who has submitted the apparent lowest price, the party initiating the protest will bear the burden of proof in the protest proceedings.

(2) In the proceedings pursuant to paragraph (e) of this section,

(i) If the grantee proposes to award a formally advertised, competitively bid, fixed-price contract to a bidder other than the bidder which submitted the apparent lowest price, the grantee will bear the burden of proving that its determination concerning responsiveness is in accordance with this subchapter; and

(ii) If the basis for the grantee's determination is a finding of nonresponsibility, the grantee must establish and substantiate the basis for its determination and must adequately establish that such determination has been made in good faith.

(h) *Deferral of procurement action.* Upon receipt of a protest pursuant to paragraph (d) of this section, the grantee must defer the protested procurement action (for example, defer the contract award or issuance of notice to proceed under a contract) until ten days after delivery of its determination to the participating parties. Where the Regional Administrator has received a written protest pursuant to paragraph (e) of this section, he must notify the grantee promptly to defer its protested procurement action until notified of the formal or informal resolution of the protest. If a determination is made by either the grantee or the Regional Administrator which is favorable to the complainant, the grantee's procurement action (for example, contract award) must be taken in accordance with such determination.

(i) *Enforcement.* (1) Noncompliance with the procurement provisions of this subchapter by the grantee shall be cause for enforcement action in accordance with one or more of the provisions of § 35.965.

(2) If the Regional Administrator determines that a protest prosecuted pursuant to this section is frivolous, he may determine the party which prosecuted such protest to be nonresponsible and ineligible for future contract award (see also paragraph (k) of this section).

(j) *Limitation.* A protest may not be filed pursuant to this section with respect to the following:

(1) Issues not arising under the procurement provisions of this subchapter;

(2) Issues relating to the selection of a consulting engineer: *Provided*, That a protest may be filed only with respect to the mandatory procedural requirements of §§ 35.937 through 35.937–9;

(3) Issues primarily determined by State or local law or ordinances;

(4) Provisions of Federal regulations applicable to direct Federal contracts, unless such provisions are explicitly referred to or incorporated in this subpart;

(5) Basic project design determinations (for example, the selection of incineration versus other methods of disposal of sludge); or

(6) Award of subcontracts or issuance of purchase orders under a formally advertised, competitively bid, lump-sum construction contract: *Provided*, That protest may be made with respect to alleged violation of the following:

(i) Nonrestrictive specifications (see § 35.936–13(a)); or

(ii) Provisions of this subpart applicable to the procurement procedures, negotiation or award of subcontracts or issuance of purchase orders pursuant to § 35.937–12 (Subcontracts under subagreements for architectual or engineering services) or § 35.938–9 (Subcontracts under construction contracts).

(k) *Summary disposition.* The Regional Administrator may summarily dismiss a protest, without proceedings under paragraphs (d) or (e) of this section, if he determines that the protest is frivolous or without merit—for example, that the protested action of the grantee primarily involves issues of state or local law. Any such determination shall refer briefly to the facts substantiating the basis for the determination.

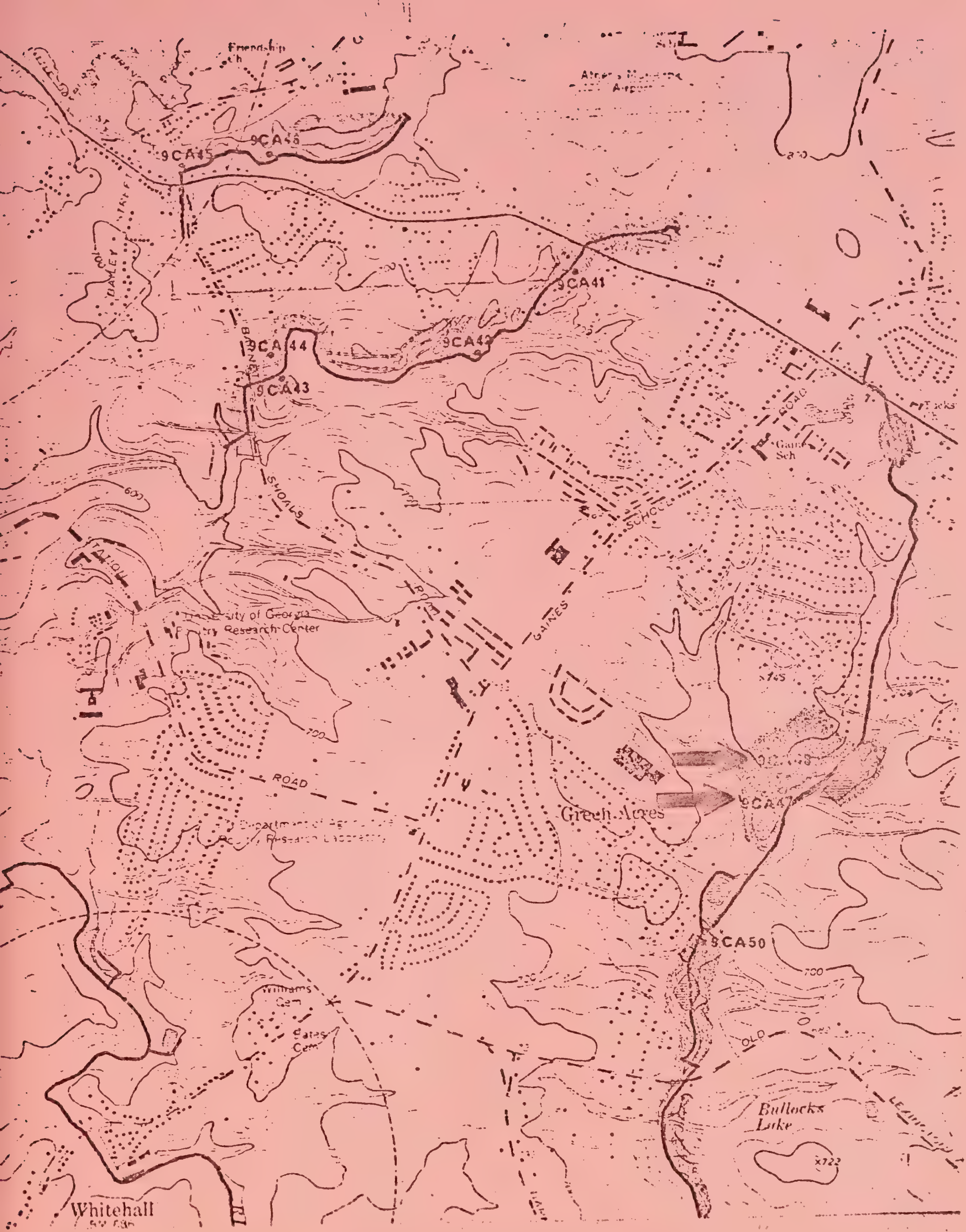
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Figure 1

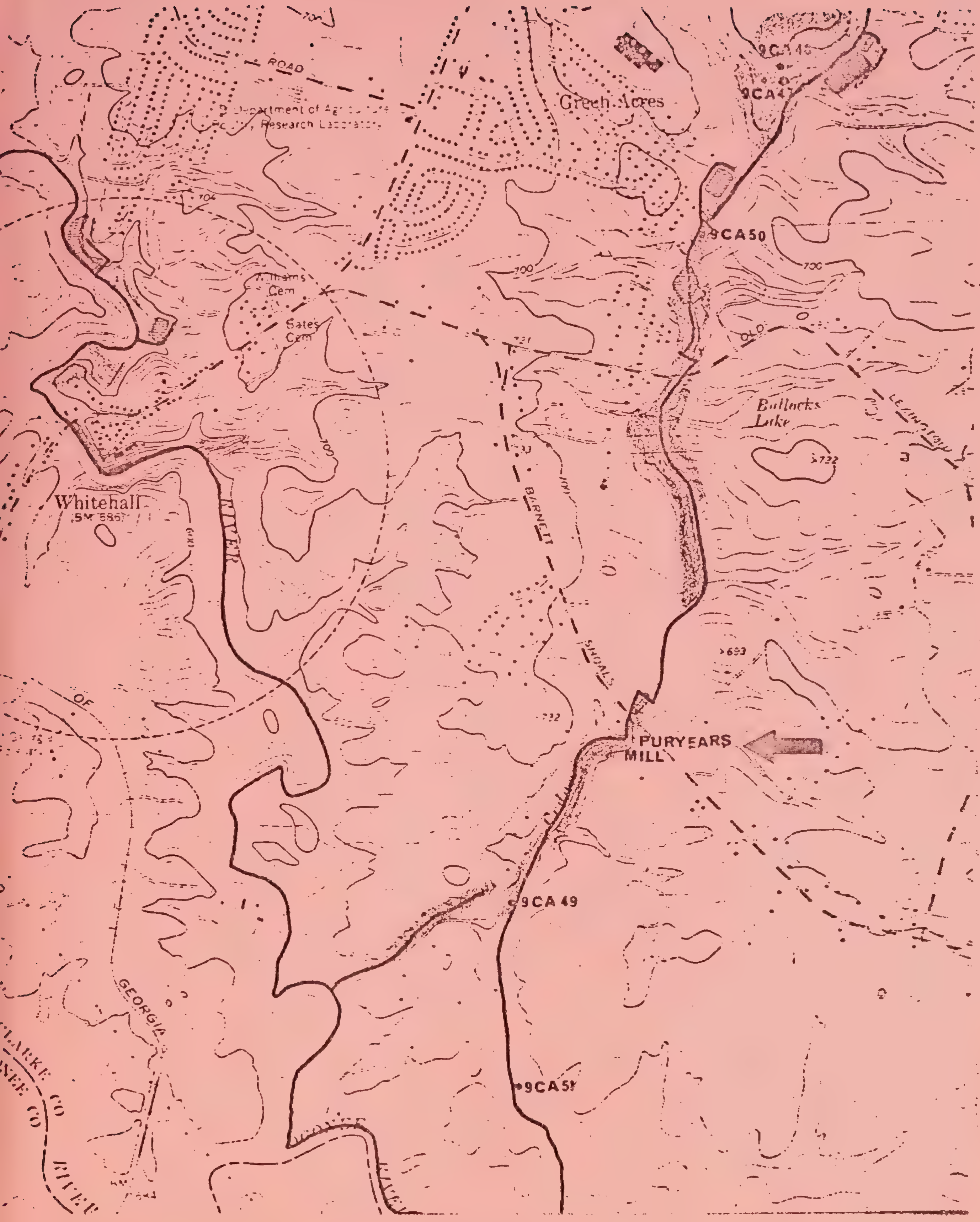
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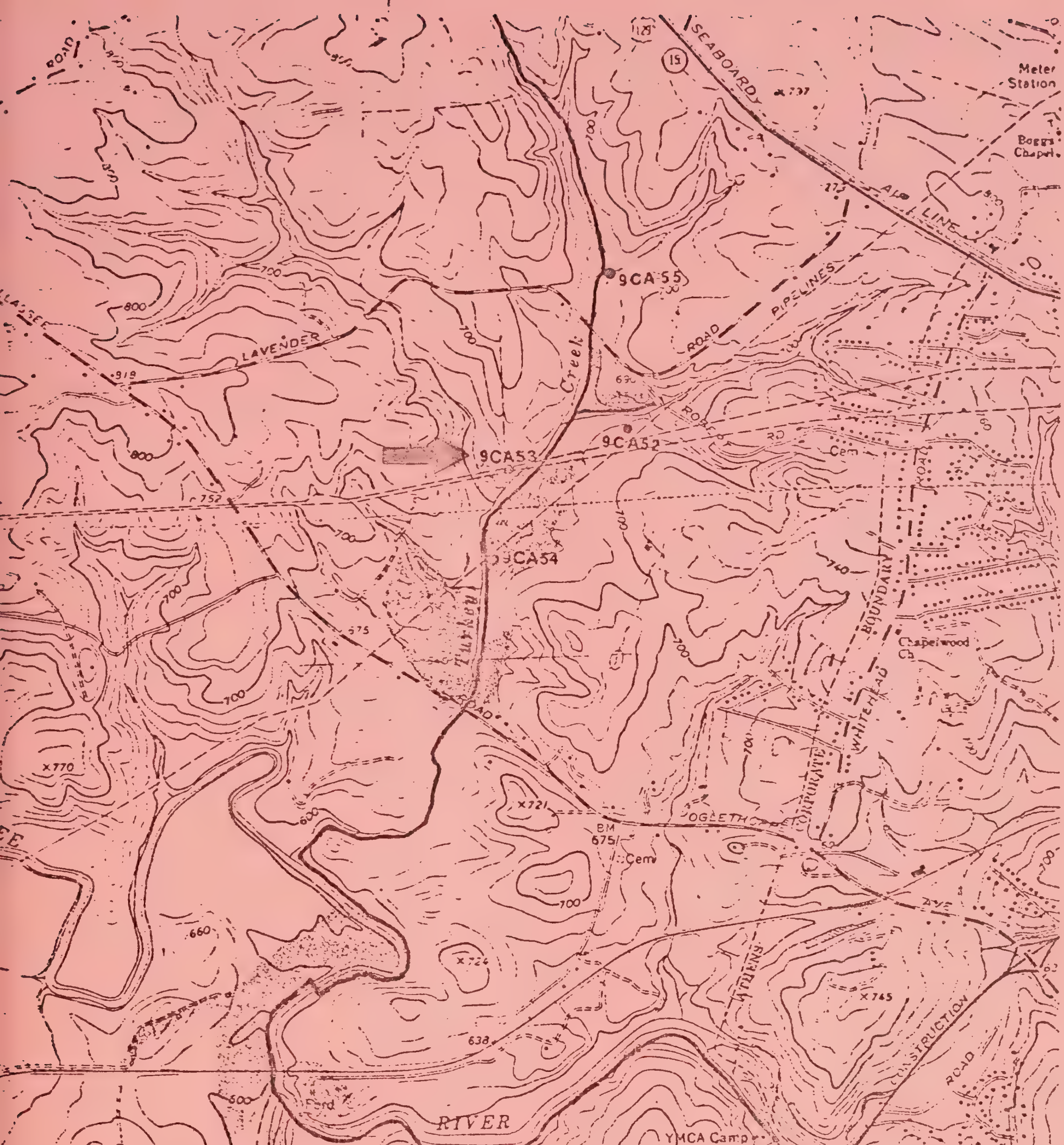
Figure 2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Boggs Chapel
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BM 738
RIVER
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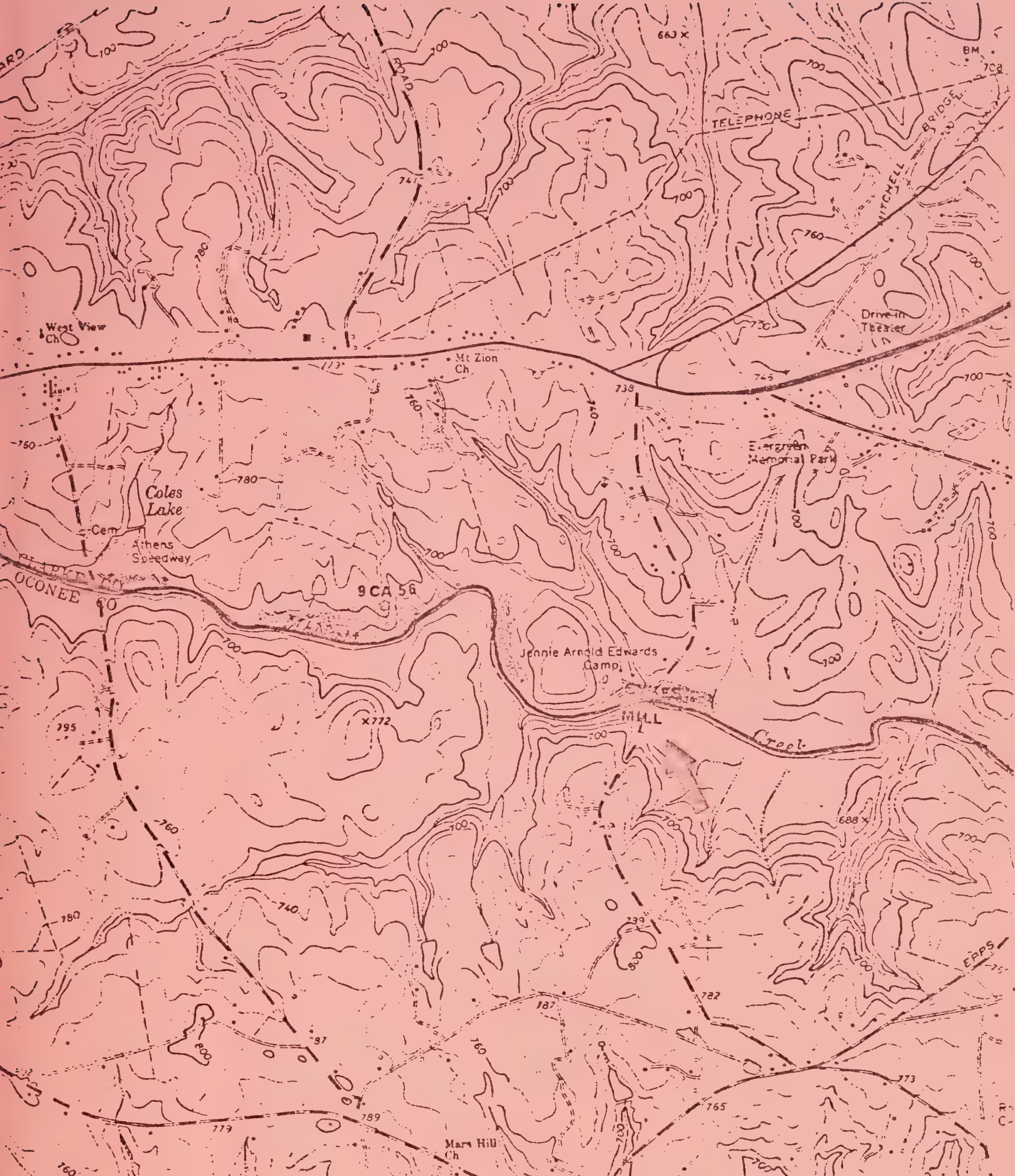
690
740
775
797
x770
x721
x724
x765
663 x

Figure 3



West View Ch
Mt Zion Ch
ROAD
TELEPHONE
MITCHELL BRIDGE
Drive-in Theater
Coles Lake
Cem
Athens Speedway
CLARKE CO
OCONEE CO
9CA56
Evergreen Memorial Park
Jennie Arnold Edwards Camp
MILL
Creek
Mars Hill Ch
Cems
EPPS
BM
663 X
708
741
773
738
745
780
760
750
700
730
795
x772
688 x
739
800
782
787
797
789
779
765

Figure 4

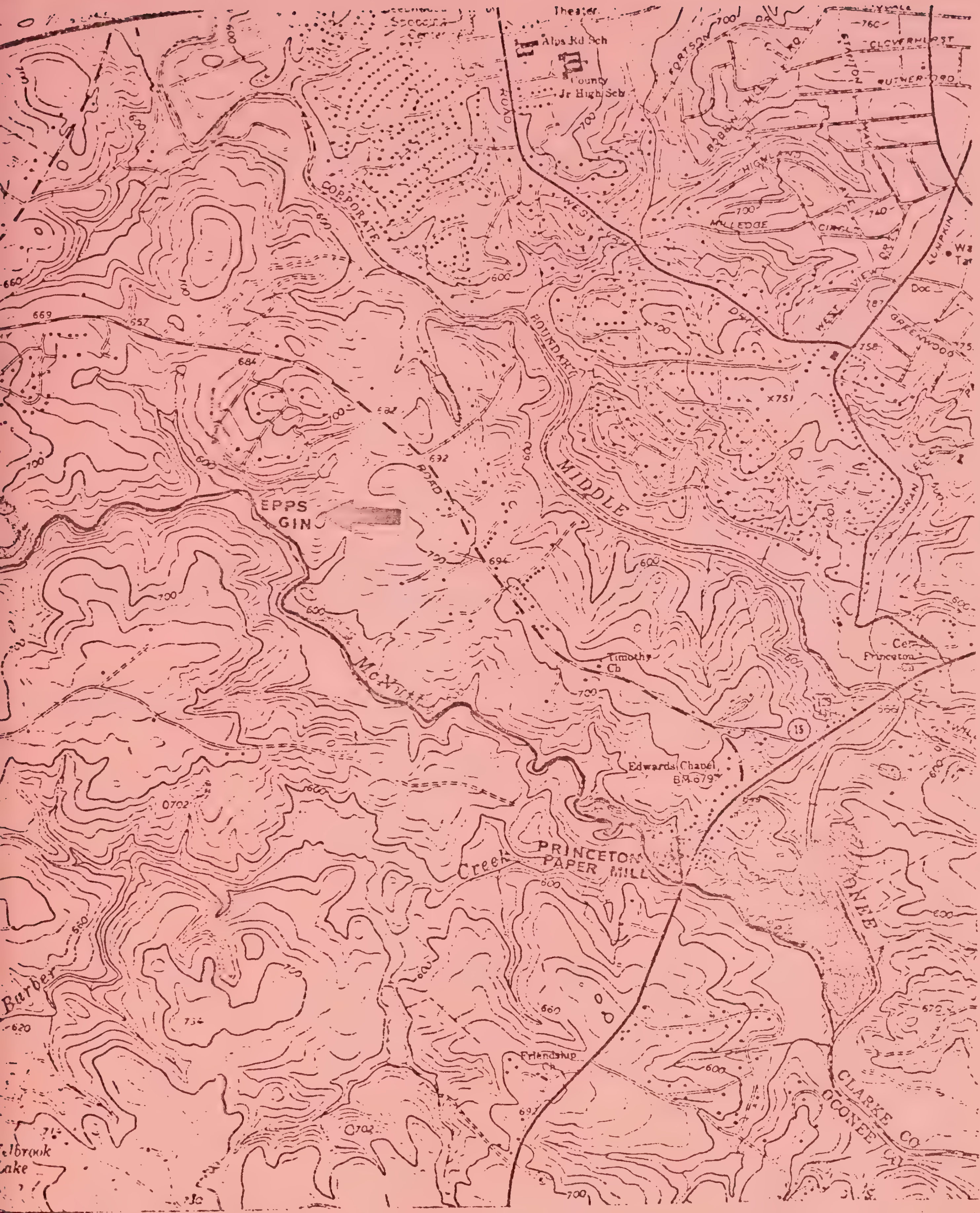

Theater
Alps Rd Sch
County Jr High Sch
FORTSON
CLOVERHURST
HIGHLAND
MILLEDGE
CIRCLE
CORPORATE
BOUNDARY
ROAD
WEST VIEW DRIVE
WEST VIEW
LUMPKIN
GREENWOOD
MIDDLE
EPPS GIN
McNutt
Creek
Timothy Ch
Edwards Chapel
BM 679
PRINCETON PAPER MILL
Cem
Princeton
Friendship Ch
Barber
OCONEE
CLARKE CO
OCONEE CO
x751
700
600
660
669
657
684
692
694
734
620

Figure 5

ADDENDUM NOTICE NO. THREE

PLANS, SPECIFICATIONS AND OTHER DOCUMENTS

FOR

SEWERAGE SYSTEM IMPROVEMENTS

CONTRACT "G"

DIVISIONS ONE AND TWO

EPA PROJECT NO. C130351

DATED FEBRUARY, 1976

Sealed Proposals to be received until 2:30 P.M., Local Time, August 25, 1977.

PLANS AND SPECIFICATIONS ISSUED FOR THIS PROJECT ARE HEREBY AMENDED IN ACCORDANCE WITH ADDENDA GIVEN IN THE FOLLOWING. ALL PROPOSALS WILL BE SUBJECT TO THE PROVISIONS OF THESE ADDENDA. ALL BIDDERS SHALL ATTACH THIS ADDENDUM TO PROPOSAL.

SPECIFICATIONS

Addendum No. 2 Page Add 1-1	Change last sentence on page to read: Division One and Two, 600 consecutive calendar days.
Addendum No. 2 Page Add 1-2	Change last heading on page to read: Section 5, Page 5-6, Paragraph 5.06, Sub-Paragraph (b).
Proposal Page P-9 Item No. 30(c)	Change to read: 20" D.I. pipe on piers Sta. 7+87 to Sta. 10+00.
Section 5 Page 5-4 Paragraph 5.05 Sub-Paragraph (f)	Delete Sub-Paragraph (f).

PLANS

Plan Sheet 17 of 30 Upper Middle Oconee River Crossing, Station 122+08 to Station 123+30	Provide two Class "B" concrete anchor blocks per joint of 24" ductile iron pipe to prevent floatation. The anchor blocks shall provide a minimum of 8" of concrete beneath the pipe barrel

Plan Sheet 17 of 30 (Cont'd)
Upper Middle Oconee
River Crossing, Station
122+08 to Station 123+30

and shall be sized to provide a minimum weight of 3000 pounds per 20 foot length of pipe. Anchor blocks may be precast and attached to the pipe by means of 3/4" galvanized anchor bolts and 1/4" x 3" pipe straps. In lieu of D.I. pipe and anchor blocks, the Contractor may furnish and install 24" prestressed concrete pipe having a wall thickness heavy enough to prevent floatation.

Payment for this work shall be included in the lump sum bid for this River Crossing.

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

AUGUST 17, 1977

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ADVERTISEMENT FOR BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
EPA PROJECT NO. C130351
CONTRACT "G", DIVISIONS ONE AND TWO
FOR
THE CITY OF ATHENS, GEORGIA

Sealed Proposals will be received by the City of Athens, Georgia, in the office of the City Clerk in City Hall until 2:30 P.M., local time, August 25, 1977, at which time and place they will be opened publicly and read. Bidders are requested to attend the Bid opening.

All prospective bidders are required to attend a pre-bid conference to be held in City Hall at 2:00 P.M., local time, on August 11, 1977. The representative attending the conference for the prospective bidder must be a certified officer of the company. The purpose of this conference is to discuss the nature of the proposed work and to answer questions concerning the plans and specifications. Should clarification or corrections to plans and/or specifications be required as a result of this meeting, addenda will be issued prior to bid opening. BIDS WILL NOT BE ACCEPTED FROM ANY CONTRACTOR WHO DOES NOT ATTEND THE PRE-BID CONFERENCE.

The work to be done consists of furnishing all materials, labor, and equipment for the construction of sanitary vitrified clay and/or PVC, or concrete pipe sewers with factory molded or O-ring type joints, one Sewage Pumping Station and all appurtenant work as shown on the drawings and specified. The work is divided into two divisions and may be awarded on a single contract or two separate contracts.

The work consists of, but is not limited to, furnishing and installing the following approximate quantities:

DIVISION ONE

A. Sewer Pipe

150	Lin. Ft.	36"
10,600	Lin. Ft.	24"
6,100	Lin. Ft.	21"
27,900	Lin. Ft.	18"
12,600	Lin. Ft.	15"
11,600	Lin. Ft.	12"
8,300	Lin. Ft.	10"
5,600	Lin. Ft.	8"

B. Ductile and/or Cast Iron Pipe Sewers

136	Lin. Ft.	36"
288	Lin. Ft.	24"
201	Lin. Ft.	20"
448	Lin. Ft.	18"
829	Lin. Ft.	16"
342	Lin. Ft.	12"
158	Lin. Ft.	10"
90	Lin. Ft.	8"

C. Manholes

3 Each 6' Diameter √
5 Each 5' Diameter
302 Each 4' Diameter

D. 1 Submersible Pump, Pumping Station

E. 22 Concrete Piers

F. 51 Lin. Ft. 48" Dia. Tunnel Liner

G. 50 Lin. Ft. 24" Steel Casing

H. 3 River Crossings

DIVISION TWO

A. Sewer Pipe

1,400 Lin. Ft. 36"
5,200 Lin. Ft. 30"
16,100 Lin. Ft. 24"
20,100 Lin. Ft. 15"
3,700 Lin. Ft. 12"
10,200 Lin. Ft. 8"

B. Ductile and/or Cast Iron Pipe Sewers

82 Lin. Ft. 30"
414 Lin. Ft. 24"
463 Lin. Ft. 16"
367 Lin. Ft. 12"
359 Lin. Ft. 8"

C. Manholes

4 Each 6' Diameter
19 Each 5' Diameter
177 Each 4' Diameter

D. 15 Concrete Piers

E. 266 Lin. Ft. 48" Tunnel Liner

F. 40 Lin. Ft. 24" Steel Casing

Project Documents are open to public inspection at the office of the City Clerk, and may be obtained from Wiedeman and Singleton, Engineers, 1789 Peachtree Road, N. E., Atlanta, Georgia 30309, upon receipt of the following amounts:

Drawings and Specifications	$120.00
Drawings only	80.00
Specifications only	40.00

Upon the return of all documents in good condition within thirty (30) days after the Bid opening date, one-half of the deposit will be refunded. No refunds will be made for Drawings and Specifications returned after thirty (30) days, and for those returned in damaged condition.

A contract Performance Bond and a Payment Bond, each in an amount equal to one hundred (100%) per cent of the contract amount will be required.

Bids must be accompanied by a certified check or bid bond in an amount not less than ten (10%) per cent of the bid.

No bid may be withdrawn for a period of ninety (90) days after the closing time scheduled for receipt of bids.

The Owner reserves the right to reject all bids. Award of the contract, if it is awarded, will be made to the lowest responsive responsible bidder.

The schedule of minimum hourly rates of wages required to be paid to the various laborers and mechanics employed directly upon the site of the work, as determined by the Secretary of the U. S. Department of Labor, will be issued by addendum.

THIS PROJECT IS A REIMBURSABLE PROJECT UNDER THE ENVIRONMENTAL PROTECTION AGENCY, AND WILL BE REFERRED TO AS EPA PROJECT NO. C130351.

BIDDERS ON THIS WORK WILL BE REQUIRED TO COMPLY WITH THE PRESIDENT'S EXECUTIVE ORDERS NOS. 11426 AND 11375. THE REQUIREMENTS FOR BIDDERS AND CONTRACTORS UNDER THIS ORDER ARE EXPLAINED IN THE SPECIFICATIONS.

BIDDERS MUST COMPLY WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, THE DAVIS-BACON ACT, THE ANTI-KICKBACK ACT, THE CONTRACT WORK HOURS STANDARDS ACT, AND THE NATIONAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.

BIDDERS MUST CERTIFY THAT THEY DO NOT AND WILL NOT MAINTAIN OR PROVIDE EMPLOYEE'S FACILITIES WHICH ARE SEGREGATED ON A BASIS OF RACE, COLOR, CREED, AND NATIONAL ORIGIN.

ANY CONTRACT OR CONTRACTS AWARDED UNDER THIS INVITATION FOR BIDS ARE EXPECTED TO BE FUNDED IN PART BY A GRANT FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. NEITHER THE UNITED STATES NOR ANY OF ITS DEPARTMENTS, AGENCIES OR EMPLOYEES IS OR WILL BE A PARTY TO THIS INVITATION FOR BIDS OR ANY RESULTING CONTRACT.

CITY OF ATHENS, GEORGIA

By: Upshaw C. Bentley, Jr.
Mayor

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

February, 1976

INSTRUCTIONS TO BIDDERS
AND
SPECIAL PROVISIONS

1. Intention: It is intended that the Instructions to Bidders and Special Provisions, General Conditions, Detailed Specifications, and Contract Drawings shall provide for the complete work to which they relate.

2. Definitions: Where the following words or pronouns used in their stead occur herein, they shall have the following meaning:

"OWNER" shall mean the CITY OF ATHENS, GEORGIA, party of the second part, to the following agreement, or their duly authorized and legal representative.

"ENGINEER" shall mean WIEDEMAN AND SINGLETON, ENGINEERS, of ATLANTA, GEORGIA, acting for the OWNER or their duly authorized representatives.

"CONTRACTOR" shall mean the party of the first part to the following agreement, or the legal authorized representatives of such party.

3. Work to be Done: The work to be done consists of furnishing all materials and equipment and performing all labor necessary for constructing "Sewerage System Improvements, Contract "G", dated February, 1976, as set forth in the Proposal form, as shown on the Drawings, and as specified.

4. Site Examination: The Bidder is expected and requested to examine the location of the work and to inform himself fully as to the structural and mechanical conditions; the conformation of the ground; the character, quality and quantity of the materials to be encountered; the character of equipment and facilities needed preliminary to and during the prosecution of the work; the general and local conditions and all other matters which can in any way affect the work to be done under the contract.

5. Drawings: The character and location of the work, together with the essential details, are shown upon a set of Drawings, entitled:

ATHENS-CLARKE COUNTY, GEORGIA
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
FEBRUARY, 1976

The Drawings and the Specifications shall form a part of the contract for the work. The approved plans will be supplemented by such working drawings as are necessary. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing.

6. Working Drawings: Working drawings shall consist of such detail drawings as may be required for prosecution of the work, but not included in the Contract Drawings. All necessary working drawings shall be furnished by the Contractor. Working drawings shall include shop details, masonry layout diagrams, bending diagrams for reinforcing steel, piping layouts, and all other such working drawings as may be required by the Specifications, and as necessary for successful completion of the work. Approval by the Engineer must be obtained before any work involving these drawings may be performed.

(a) Check by Contractor: The Contractor shall check all shop drawings and working drawings for accuracy of dimensions and details, and for conformance with Contract Drawings and Specifications, before submitting such drawings to the Engineer for approval. The Contractor shall indicate that shop and working drawings have been checked by an appropriate stamp or notation on the face of the drawings.

(b) Responsibility for Accuracy: Approval by the Engineer of the Contractor's working drawings does not relieve the Contractor for accuracy of dimensions and details. The Contractor shall be responsible for agreement and conformity of these working drawings with the Contract Drawings and Specifications.

(c) Payment: The Contract price shall include the cost of furnishing all working drawings, and the Contractor shall be allowed no extra compensation for furnishing such working drawings.

7. Cooperation of Contractor: The Contractor will be supplied with five (5) copies of the plans and Specifications. The Contractor shall have available on the work, at all times, one (1) copy of each of said plans and Specifications. He shall give the work the constant attention necessary to facilitate progress thereof and shall cooperate with Engineer and other Contractors in every way possible. Contractor shall at all times have a Superintendent, satisfactory to the Engineer, capable of acting as his agent on the work, who shall receive instructions from the Engineer or his authorized representatives. The Superintendent shall have full authority to execute the orders or directions of the Engineer without delay and to promptly supply such materials, tools, equipment and labor as may be required.

8. Order of Work: The Owner reserves the right to accept and use portions of the work when it is considered to be in the public's interest to do so; the Engineer shall have the authority to establish the order in which the lines shall be worked. In Division One the Stockade and O'Kelly Road interceptors shall be the first order of work. In Division Two the Cedar Creek interceptor shall be the first order of work.

9. Proposals: All Proposals must be made on the Proposal form included herein and shall be for materials and work shown on the Drawings and/or specified. Proposal forms shall not be detached from these Specifications. Proposals are to be enclosed in a sealed envelope addressed to The Mayor and Council of the City of Athens, Georgia, and shall be labeled "Proposal: Sewerage System Improvements, Contract 'G', Athens, Georgia."

If forwarded by mail the sealed envelope containing the Proposal must be enclosed in another envelope addressed as specified.

(a) Unit Price Items: The itemized quantities given in the Proposal are unit price work and shall be considered by the Contractor as the quantities required to complete the work. Should the actual quantities required in the construction of the work be greater than or less than the quantities shown in the items, an amount equal to the difference in quantities at the unit prices bid for the items will be added to or deducted from the total contract amount.

(b) Lump Sum Prices: Where itemized prices are not given in the Proposal, the work shown on the Drawings or specified shall be considered by the Contractor to be sufficient for completion of his contract for the lump sum prices bid. Should the actual quantities required for construction be greater than or less than the work shown on the Drawings, or specified, an amount equal to the difference in quantities at the unit prices bid for

authorized changes in work will be added to or deducted from the contract price.

(c) Total Amount Bid: The correct total amount bid is defined as the correct sum total of amounts bid for the items in the Proposal. The correct amount bid for each unit price item is defined as the correct product of the quantity listed in the Proposal for the item, multiplied by the unit price bid.

10. Extra Work Items in Proposal: The Proposal contains certain unit price items entitled "Extra Work if Ordered by Engineer". In each such item the estimated quantity is based upon the average amount of extra work encountered in a typical job. The stated quantities are not guaranteed, but are included in the Proposal in order to determine in advance of construction the actual low bidder. No work included in such items will be authorized for payment without advance authorization by the Engineer.

11. Time of Completion and Liquidated Damages: The time allowed for completion of all work to be done under this contract shall be computed from the date specified in the notification by the Engineer to proceed with the work and shall be as stated in the Proposal and Construction Agreement. Time is of the essence of this contract, and the Contractor shall pay to the Owner, not as a penalty, but as liquidated damages, the sum of one hundred ($100.00) dollars for each calendar day that he shall be in default of completing all the work within the time limit named herein. Such notification will be issued upon completion of the Construction Agreement, and in accordance with approved construction schedule, arranged to be within the contract time for completion.

12. Bid Security: Each Proposal must be accompanied by a certified check or by a bid bond for an amount equal to at least 10% of the amount of the bid, to guarantee that the successful bidder will, within ten (10) days from the date of the notice of award of contract, enter into a contract with the Owner, and execute to said Owner a Performance Bond and Payment Bond, the said contract and bonds to be in the form set forth in the Contract, Bond and Specifications referred to in said Advertisement for Bids. If for any reason whatever, the Bidder withdraws from the competition after opening the bids, or refuses to execute the required Contract, Performance and Payment Bond, if his Bid is accepted, the Owner may retain the amount of the certified check, or proceed on the Bid Bond. The Surety on the Contract Performance Bond and the Payment Bond shall be a surety company authorized to do business in the State of Georgia, Clarke County. Said bond and surety shall be subject to approval by the Attorney for the Owner.

13. Insurance Coverage: The Bidders' attention is directed to the fact that the Contractor will be required to secure insurance of the type, and of the amounts, described in the General Conditions.

14. Bids Opening in Public: Bidders are requested to be present at the opening of Proposals, which will be in public.

15. Telegraphic Modification: Any bidder may modify his bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and provided, further, the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other

modification so that final prices or terms will not be known by the Owner until the sealed bid is opened. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

16. Right to Reject Bids: The Owner reserves the right to reject all bids and to waive informalities. No bids will be received after the time set for opening Proposals. Any unauthorized conditions, limitations or provisos attached to the Proposal, except as provided herein, will render it informal and may cause its rejection. Unbalanced bids will be subject to rejection. Any bidder may withdraw his bid, either personally or by telegraphic or written request, at any time prior to the scheduled closing time for receipt of bids.

17. Determination of Low Bid: The Contract will be awarded, if it is awarded, to the lowest responsible bidder or bidders. The Owner will decide which is the lowest responsive responsible bidder, and in determining such bidder, the following elements are to be considered: Whether the bidder involved (a) maintains a permanent place of business; (b) has adequate plant equipment to do the work properly and expeditiously; (c) has a suitable financial status to meet obligations incident to the work; and (d) has appropriate technical experience on similar type of work and scope.

18. Return of Bid Security: The Owner will, within ten (10) days following the opening of bids, return the certified check or bid bond of all bidders, except the checks or bonds posted by the three lowest bidders, and upon the final award and execution of contract the remaining checks and bonds will be promptly returned.

19. Interpretation of Plans and Specifications: If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other proposed contract documents, or as to the scope of any part of the work, he shall submit to the Engineer a written request for an interpretation thereof. The person submitting the request will be responsible for its proper delivery in ample time for an interpretation to be issued not later than three (3) days prior to the letting date. Any interpretation of the proposed documents will be made only by Addendum duly issued and a copy of such Addendum will be mailed or delivered to each person receiving a set of such documents. The Engineer will not be responsible for any other interpretations of the proposed documents.

20. Complete Work Required: The Specifications, the Plans, and all Supplementary Documents are essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to be cooperative, to describe and provide for a complete work. In case of discrepancy in the plans, figured dimensions shall govern. In case of omissions from the Specifications, as to items of equipment and materials or quantities therefor, the plans shall govern. It shall be the responsibility of the Bidder to call to the attention of the Engineer obvious omissions of such magnitude as to affect the strength, adequacy, function, completeness, or cost of any part of the work in ample time for amendment by Addendum prior to letting date.

21. Construction Stakes: Subsidiary lines and grades shall be laid out by the Contractor from the controlling lines and bench marks furnished by the Engineer or from measurements shown on the Drawings. All lines and grades shall be subject to checking by the Engineer, but this checking shall in no wise relieve the Contractor from responsibility for their correctness.

The Contractor shall provide such stakes, materials, and such labor and assistance as the Engineer may require in laying out work, establishing bench marks and checking and measuring the work.

22. Authority and Duties of Inspector: Inspectors shall be authorized to inspect all work done and all materials furnished, including preparation, fabrication and manufacture of the materials to be used. The Inspector shall not be authorized to alter or waive any requirements of the Specifications. He shall call the attention of the Contractor to any failure of the work or materials to conform to the Specifications and Contract. He may reject materials or suspend the work until any questions at issue can be referred to and decided by the Engineer.

The presence of the Inspector shall in no wise lessen the responsibility of the Contractor.

23. Inspection: The Contractor shall furnish the Engineer with every reasonable facility for ascertaining whether or not the work performed and materials used are in accordance with the requirements and intent of the Specifications and Contract. No work shall be done or materials used without suitable supervision or inspection by the Engineer or his representative. Failure to reject any defective work or materials shall not in any way prevent later rejection when such defect is discovered, or obligate the Owner to final acceptance.

24. Defective Work and Material: The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contract and defective work shall be made good, notwithstanding that such work and materials have been previously inspected by the Engineer and accepted or estimated for payment. The failure of the Engineer to condemn improper materials or workmanship shall not be considered as a waiver of any defect which may be discovered later, or as preventing the Owner at any time subsequently from recovering damages for work actually defective. All work shall be guaranteed against defects in workmanship or material for a period of one year.

25. Rejection of Work and Materials: All materials furnished and work done when not in accordance with the Specifications and Contract, will be rejected and shall immediately be removed and other work done and materials furnished in accordance therewith. If the Contractor fails to remove the work and materials as above ordered, within forty-eight hours, then the Engineer shall have the right and authority to stop the Contractor and his work at once and to supply men and material at the cost and expense of the Contractor to remove said work and materials.

26. Corrections: Should any portions of the Plans and Specifications be obscure or in dispute, they shall be referred to the Engineer and he shall decide as to the true meaning and intent. He shall also have the right to correct any errors or omissions at any time when such corrections are necessary for the proper fulfillment of said Plans and Specifications.

27. Disagreement: Should any disagreement or difference arise as to the estimate, quantities or classifications, or as to the meaning of the Drawings or Specifications, or any point concerning the character, acceptability, and nature of the several kinds of work, any materials and construction thereof, the decision of the Engineer shall be final and conclusive and binding upon all parties to the Contract.

28. Weather: During unseasonable weather, all work must stop when the Engineer so directs and all work must be suitably protected.

29. Right-of-Way: The necessary land for the construction of the work will be furnished by the Owner. All operations shall be confined to the assigned area. The Owner will provide no right-of-way over other property. The Contractor shall take every possible precaution to inconvenience as little as possible the owners or tenants of adjacent property. Public highways shall not be obstructed in such a way as to cut off traffic. The Contractor shall, at his own expense, repair any damage or injury to either public or private property during the progress of the work.

The Contractor shall confine all construction activities within rights-of-way obtained by the Owner. In roadways and streets, existing right-of-way limits shall be observed. Wholesale cutting of trees will not be permitted. The Contractor's attention is directed to Paragraph 41 of the General Conditions concerning the protection of trees.

30. Competent Labor: The Contractor shall employ only competent and skilled men on the work. The Contractor shall have a competent Superintendent or Foreman present at all times when the work is in progress with authority to receive orders and execute the work.

The Contractor shall, upon demand from the Engineer, immediately remove any Superintendent, Foreman or workman whom the Engineer may consider incompetent or undesirable.

31. Contractor's Availability: The Contractor shall have a responsible representative on call at all times. The Contractor will also maintain a crew with necessary tools and equipment available on call after normal working hours, on weekends during inclement weather and other times when work is not in progress to perform any necessary emergency repair work which may occur as a result of the work under this Contract.

32. Laws and Regulations: The Contractor shall keep himself fully informed of all laws, ordinances and regulations of State, City and County in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in this contract, or in the Drawings or Specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the Owner. He shall at all times, himself observe and comply with all such existing and future laws, ordinances and regulations, and shall protect and indemnify the Owner and its agents against any claims or liability arising from or based on the violation of any such laws, ordinance, regulation, order or decree, whether by himself or by his employees. The Contractor shall abide by all local and state laws and regulations to the extent that such requirements do not conflict with Federal laws or regulations.

33. Protective Works: The Contractor shall furnish and install all necessary temporary works for the protection of the work, including barricades, warning signs, and lights at night.

34. Safety Regulations: The performance of the work under this contract shall comply with safety regulations prescribed by the Owner. Each bidder shall satisfy himself as to the character and extent of such regulations.

35. Sanitary Regulations: Necessary sanitary conveniences for the use of the laborers on the work shall be erected and maintained by the Contractor. Their use shall be strictly enforced.

36. Shanties: Should the Contractor so desire, he may build shanties or other structures for housing tools, machinery and supplies, but they will be permitted only at approved places, and their surroundings shall be maintained at all times in a sanitary and satisfactory manner. On or before the completion of the work, all such structures shall be removed, together with all rubbish and trash, at the expense of the Contractor.

37. Office Space and Facilities for Inspectors: The Contractor shall furnish proper and adequate office space and facilities for the use of the Resident Engineer and Inspectors. A room shall be provided at least 12' x 14' either in connection with the Contractor's office or in a separate structure, equipped with lights, heat, air conditioning, telephone, desk, chair, file cabinet, plan rack and plan table.

38. Access Roads: Streets, roads, and drives used by the Contractor for access to and from the site of his work shall be protected from damage in excess of that caused by the normal traffic or vehicles used, or in connection with construction work. Any such damage done shall be repaired immediately and left in good condition at the end of the construction period.

39. Water Supply: The Owner will furnish all water necessary for construction or testing operations. All connections and other means of conducting water must be provided by the Contractor.

40. Power of Attorney: Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

41. Georgia State Sales Tax: Bidders shall include in amounts bid in the Proposal an allowance for payment of State Sales Tax on all taxable materials specified to be furnished by the Contractor and incorporated into the work under this Contract.

42. Cleaning Up: Before the work is considered complete, all rubbish and unused material due to, or connected with, the construction shall be removed and the premises left in a condition satisfactory to the Owner. Streets, curbs, crosswalks, pavements, sidewalks, fences, and other public and private property disturbed or damaged shall be restored to their former condition; final payment will be withheld until such work is finished.

43. Non-Discrimination in Employment: Contracts for this work will obligate the Contractor and his subcontractors not to discriminate in employment practices. The Contractor and his subcontractors will be required to comply with the President's Executive Orders Nos. 11246 and No. 11375. Bidders must, if requested, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the Contract.

44. Labor Requirements: See Labor Standards Form in these documents. Preference in employment on this Project will, insofar as practicable, be given to qualified local labor.

45. Special Notice to Bidders on Contractos Over $1,000,000.00: The Environmental Protection Agency requires a pre-award conference if a proposed construction contract exceeds one million dollars to determine if the prospective contractor is in compliance with the Equal Employment Opportunity requirements of

Executive Order #11246 of September 24, 1965. In such instances, the Environmental Protection Agency will schedule a meeting in which the prospective contractor must specify what affirmative action he has taken or proposes to take to assure equal employment opportunity; action be approved by the Equal Opportunity Office of the Environmental Protection Agency before award of the Contract will be authorized.

46. Non-Segregation Facilities Requirements: Bidders must certify that they do not and will not maintain or provide for their employees any facilities that are segregated on a basis of race, color, creed or national origin.

SPECIAL NOTICE TO BIDDERS ON CONTRACTS OVER $1,000,000.00

The Environmental Protection Agency requires a pre-award conference if a proposed construction contract exceeds one million dollars to determine if the prospective contractor is in compliance with the Equal Employment Opportunity requirements of Executive Order 11246 of September 24, 1965.

In such instances, the Environmental Protection Agency may schedule a meeting at which the prospective contractor must specify what affirmative action he has taken or proposes to take to assure equal employment opportunity which must be approved by the Environmental Protection Agency before award of the contract will be authorized.

SECTION 35.938, CONSTRUCTION CONTRACTS OF GRANTEES AND SECTION 35.939, COMPLIANCE WITH PROCUREMENT REQUIREMENTS
(REFERENCE: 40 CFR, PART 35 CONSTRUCTION GRANTS FOR WASTE TREATMENT WORKS)

35.938-1 Applicability.

This section applies to contracts awarded by grantees for any Step 3 project or Step 2+3 project, except personal and professional service contracts.

35.938-2 Performance by Contract.

It is the policy of the Environmental Protection Agency to encourage free and open competition with regard to project work performed by contract. The project work shall be performed under one or more contracts awarded by the grantee to private firms, except for force account work authorized by 35.935-2. The following sections define EPA policy for the implementation of the procurement standards set forth in Office of Management and Budget Circular No. A-102, Attachment O (printed at 38 FR 21345, August 7, 1973). Grantee procurement systems should as a minimum provide for the following:

35.938-3 Type of Contract.

Each contract shall be either a fixed-price (lump sum) contract or fixed-rate (unit price) contract, or a combination of the two, unless the Regional Administrator gives advance written approval for the grantee to use some other method of contracting. The cost-plus-a-percentage of cost method of contracting shall not be used.

35.938-4 Formal Advertising.

Each contract shall be awarded by means of formal advertising, unless negotiation is permitted in accordance with 35.938-5. Formal advertising shall be in accordance with the following:

(a) Adequate Public Notice. The grantee will cause adequate notice to be given of the solicitation by publication in newspapers or journals of general circulation, beyond the grantee's locality (Statewide, generally) inviting bids on the project work, and stating the method by which bidding documents may be obtained and/or examined. Where the estimated prospective cost of Step 3 construction is ten million dollars or more, such notice must generally be published in trade journals of Nationwide distribution. The grantee should in addition solicit bids directly from bidders, if it maintains a bidders list.

(b) Adequate Time for Preparing Bids. Adequate time, generally not less than 30 days must be allowed between the date when public notice pursuant to paragraph (a) of this Section is first published and the date by which bids must be submitted. Bidding documents (including Specifications and Drawings) shall be available to prospective bidders from the date when such notice is first published.

(c) Adequate Bidding Documents. A reasonable number of bidding documents (invitations for bid) shall be prepared by grantee and shall be furnished upon request on a first-come, first-served basis. A complete set of bidding documents shall be maintained by grantee and shall be available for inspection and copying by any party. Such bidding documents shall include:

(1) A complete statement of the work to be performed, including necessary drawings and specifications, and the required completion schedule. (Drawings and specifications may be made available for inspection instead of being furnished);

(2) The terms and conditions of the contract to be awarded;

(3) A clear explanation of the method of bidding and the method of evaluation of bid prices, and the basis and method for award of the contract;

(4) Responsibility requirements or criteria which will be employed in evaluating bidders; Provided, That an experience requirement or performance bond may not be utilized unless adequately justified under the particular circumstances by the grantee;

(5) The following statement:

Any contract or contracts awarded under this Invitation for Bids are expected to be funded in part by a grant from the United States Environmental Protection Agency. Neither the United States nor any of its departments, agencies or employees is or will be a party to this Invitation for Bids or any resulting contract;

and

(6) A copy of 35.938 and 35.939.

(d) Sealed Bids. The grantee shall provide for bidding by sealed bid and for the safeguarding of bids received until public opening.

(e) Amendments to Bidding Documents. If grantee desires to amend any part of the bidding documents (including drawings and specifications) during the period when bids are being prepared, the amendments shall be communicated in writing to all firms who have obtained bidding documents in time to be considered prior to the bid opening time; when appropriate, the period for submission of bids shall be extended.

(f) Bid Modifications. A firm which has submitted a bid shall be allowed to modify or withdraw its bid prior to the time of bid opening.

(g) Public Opening of Bids. Grantee shall provide for a public opening of bids at the place, date and time announced in the bidding documents.

(h) Award to the Low Responsive, Responsible Bidder.

(1) After bids are opened, they shall be evaluated by grantee in accordance with the methods and criteria set forth in the bidding documents.

(2) Unless all bids are rejected, award shall be made to the low, responsive, responsible bidder.

(3) If award is intended to be made to a firm which did not submit the lowest bid, a written statement shall be prepared prior to any award and retained by the grantee explaining why each lower bidder was deemed not responsive or nonresponsive.

(4) State or local laws, ordinances, regulations or procedures which are designed or operate to give local or in-State bidders preference over other bidders shall not be employed in evaluating bids.

35.938-5 Negotiation.

Negotiation of contracts (i.e., award of contracts by any method other than formal advertising) is authorized if it is impracticable and infeasible to use formal advertising. Negotiated contracts must be competitively awarded to the maximum practicable extent. Generally, procurements may be negotiated by the grantee if:

(a) Public exigency will not permit the delay incident to advertising (e.g., an emergency procurement);

(b) The material or service to be procured is available from only one person or firm (and, if the procurement is expected to aggregate more than $5,000, the Regional Administrator has given prior approval);

(c) The aggregate amount involved does not exceed $2,500, (except as provided in paragraph (b) of this Section);

(d) The procurement is for personal or professional services, or for any service to be rendered by a university or other educational institution;

(e) No responsive, responsible bids at acceptable price levels have been received after formal advertising, and the Regional Administrator has given advance written approval;

(f) The procurement is for material or services where the prices are established by law, for technical items or equipment requiring standardization and interchangeability of parts with existing equipment, for experimental, developmental or research work, for highly perishable materials, resale, or for technical or specialized supplies requiring substantial initial investment for manufacture. Any negotiated procurement under this paragraph (f) of this Section, other than for perishable materials must be approved in advance by the Regional Administrator; or

(g) Negotiation of contracts is otherwise authorized by Federal law, rules, or regulations or approved prior to the procurement by the Regional Administrator.

35.939 Compliance with Procurement Requirements:

(a) Grantee Responsibility. The grantee is primarily responsible for selecting the low, responsive, and responsible bidder in accordance with applicable requirements of State, territorial, or local laws or ordinances, as well as the specific requirements of Federal law or this subchapter directly affecting the procurement (for example, the nonrestrictive specification requirement of 35.935-2(b) or the Equal Employment Opportunity requirement of 35.935-6) and for the initial resolution of complaints based upon alleged violations. If complaint is made to the Regional Administrator concerning an alleged violation of Federal law or this subchapter in the procurement of construction services or materials for a project involving Step 3, the complaint will be referred to the grantee for resolution. The grantee must promptly determine each such complaint upon its merits permitting the complaining party as well as any other interested

party who may be adversely affected, to state in writing or at a conference the basis for their views concerning the proposed procurement. The grantee must promptly furnish to the complaining party and to other affected parties, by certified mail, a written summary of its determination, substantiated by an engineering and legal opinion, providing a justification for its determination. See paragraph (c) of the section for applicable time limitations.

(b) Regional Administrator Responsibility. A party adversely affected by an adverse determination of a grantee made pursuant to paragraph (a) of this Section, concerning an alleged violation of a specific requirement of Federal law or this subchapter directly affecting the procurement of construction services or material for a project involving Step 3 may request the Regional Administrator to review an adverse determination, subject to the time limitation set forth in paragraph (c) of this Section. A copy of the written adverse determination and supporting justification shall be transmitted with the request for review, together with a statement of the specific reasons why the proposed grantee procurement action would violate Federal requirements. The Regional Administrator will afford both the grantee and the complaining party, as well as any other interested party who may be adversely affected, an opportunity to present the basis for their views in writing or at a conference, and he shall promptly state in writing the basis for his determination of the protest. If the grantee proposes to award the contract or to approve award of a specified sub-item under the contract to a bidder other than the low bidder, the grantee will bear the burden of proving that its determination concerning responsiveness of the low bid is in accordance with Federal law and this subchapter, or, if the basis for the grantee's determination is a finding that the low bidder is not responsible, the grantee must establish and substantiate the basis for its determination and must establish that such determination has been made in good faith. The written determination by the Regional Administrator shall be promptly furnished to the grantee and to the complainant.

(c) Time Limitations. Complaints should be made pursuant to paragraph (a) of this Section as early as possible during the procurement process, preferably prior to issuance of an invitation for bids to avoid disruption of the procurement process: Provided, That a complaint authorized by paragraph (a) of this Section must be mailed by certified mail (return receipt requested) or delivered no later than five working days after the bid opening. A request for review by the Regional Administrator pursuant to paragraph (b) of this Section must be received by the Regional Administrator within one week after the complaining party received the grantee's adverse determination.

(d) Deferral of Procurement Action. Where the grantee has received a written complaint pursuant to paragraph (a) of this Section, it must defer issuance of its solicitation or award or notice to proceed under the contract (as appropriate) for ten days after mailing or delivery of any written adverse determination. Where the Regional Administrator has received a written protest pursuant to paragraph (b) of this Section, he must notify the grantee promptly and the grantee must defer issuance of its soliciation or award of the construction contract, as appropriate, until ten days after it receives the determination by the Regional Administrator. If a determination is made by either the grantee or the Regional Administrator which is favorable to the complainant, the terms of the solicitation must be revised or the contract must be awarded (as appropriate) in accordance with such determination.

(e) Enforcement. Noncompliance with the provisions of this subchapter

affecting procurement will result in (1) total or partial termination of the grant pursuant to 35.950, (2) ineligibility for grant assistance which could otherwise be awarded under this subchapter or (3) disallowance of project costs (see 35.940-2(j) incurred in violation of the provisions of this subchapter or applicable Federal laws, as determined by the Regional Administrator. The grantee may appeal adverse determinations by the Regional Administrator in accordance with the Disputes Article (Article 7 of Appendix A to Subchapter B of this title).

PROPOSAL

TO THE MAYOR AND COUNCIL
CITY OF ATHENS, GEORGIA

Submitted: 8-25-77.

The undersigned, as Bidder, hereby declares that the only person or persons interested in the Proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this Proposal or in the contract to be entered into; that this Proposal is made without connection with any other person, company or parties making a bid or Proposal; and that it is in full respect fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the place where the work is to be done; that he has examined the Plans and Specifications for the work and Contractual Documents relative thereto, and has read all Special Provisions and General Conditions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the City of Athens, Georgia, in the form of contract specified, to furnish all necessary materials, equipment, machinery, tools, apparatus; means of transportation and labor necessary and to complete the construction of the work, in full and complete accordance with the shown, noted, described, and reasonably intended requirements of the Specifications and Contract Documents, to the full and entire satisfaction of the City of Athens, Georgia, with a definte understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and Contract Documents, for the following prices:

DIVISION ONE

SEWERS AND APPURTENANCES

				Clay Pipe		Concrete Pipe	
Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price	Unit Price	Total Price
1.			36" Pipe Sewer				
(a)	50	L.F.	8'-10' Cut	$	$	$ 38.00	$ 1,900.00
(b)	100	L.F.	10'-12' Cut	$	$	$ 39.00	$ 3,900.00
2.			24" Pipe Sewer				
(a)	300	L.F.	0'- 4' Cut	$	$	$ 21.00	$ 6,300.00
(b)	1,100	L.F.	4'- 6' Cut	$	$	$ 21.00	$ 23,100.00
(c)	950	L.F.	6'- 8' Cut	$	$	$ 21.50	$ 20,425.00
(d)	100	L.F.	8'-10' Cut	$	$	$ 22.50	$ 2,250.00
(e)	850	L.F.	10'-12' Cut	$	$	$ 23.00	$ 19,550.00
(f)	3,400	L.F.	12'-14' Cut	$	$	$ 24.00	$ 81,600.00
(g)	2,500	L.F.	14'-16' Cut	$	$	$ 26.00	$ 65,000.00
(h)	1,150	L.F.	16'-18' Cut	$	$	$ 32.00	$ 36,800.00
(i)	150	L.F.	18'-20' Cut	$	$	$ 39.00	$ 5,850.00
(j)	150	L.F.	20'-22' Cut	$	$	$ 44.00	$ 6,600.00
3.			21" Pipe Sewer				
(a)	1,800	L.F.	4'- 6' Cut	$	$	$ 18.00	$ 32,400.00
(b)	1,650	L.F.	6'- 8' Cut	$	$	$ 18.50	$ 30,525.00
(c)	1,200	L.F.	8'-10' Cut	$	$	$ 19.50	$ 23.400.00
(d)	350	L.F.	10'-12' Cut	$	$	$ 20.50	$ 7,175.00
(e)	400	L.F.	12'-14' Cut	$	$	$ 22.00	$ 8,800.00
(f)	150	L.F.	14'-16' Cut	$	$	$ 24.50	$ 3,675.00
(g)	200	L.F.	16'-18' Cut	$	$	$ 27.00	$ 5,400.00
(h)	100	L.F.	18'-20' Cut	$	$	$ 37.00	$ 3,700.00
(i)	50	L.F.	20'-22' Cut	$	$	$ 47.00	$ 2,350.00

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	Concrete Pipe Unit Price	Concrete Pipe Total Price
3.	(Continued)						
(j)	50	L.F.	22'-24' Cut	$	$	$ 57.00	$ 2,850.00
(k)	100	L.F.	24'-26' Cut	$	$	$ 67.00	$ 6,700.00
4.			18" Pipe Sewer				
(a)	800	L.F.	0'- 4' Cut	$	$	$ 15.50	$ 12,400.00
(b)	10,000	L.F.	4'- 6' Cut	$	$	$ 16.00	$160,000.00
(c)	12,000	L.F.	6'- 8' Cut	$	$	$ 16.50	$198,000.00
(d)	2,900	L.F.	8'-10' Cut	$	$	$ 17.50	$ 50,750.00
(e)	1,100	L.F.	10'-12' Cut	$	$	$ 18.50	$ 20,350.00
(f)	400	L.F.	12'-14' Cut	$	$	$ 19.50	$ 7,800.00
(g)	300	L.F.	14'-16' Cut	$	$	$ 22.00	$ 6,600.00
(h)	100	L.F.	16'-18' Cut	$	$	$ 27.00	$ 2,700.00
(i)	50	L.F.	18'-20' Cut	$	$	$ 37.00	$ 1,850.00
(j)	50	L.F.	20'-22' Cut	$	$	$ 52.00	$ 2,600.00
(k)	50	L.F.	22'-24' Cut	$	$	$ 62.00	$ 3,100.00
(l)	50	L.F.	24'-26' Cut	$	$	$ 77.00	$ 3,850.00
5.			15" Pipe Sewer				
(a)	100	L.F.	0'- 4' Cut	$	$	$ 14.00	$ 1,400.00
(b)	6,000	L.F.	4'- 6' Cut	$	$	$ 14.00	$ 84,000.00
(c)	2,350	L.F.	6'- 8' Cut	$	$	$ 14.50	$ 34,075.00
(d)	2,300	L.F.	8'-10' Cut	$	$	$ 15.50	$ 35,650.00
(e)	1,800	L.F.	10'-12' Cut	$	$	$ 16.50	$ 29,700.00

Sub-Total, Item Nos. 1 to 5, inclusive
using lowest cost materials $1,055,075.00

				Clay Pipe		PVC Pipe	
Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price	Unit Price	Total Price
6.			12" Pipe Sewer				
(a)	800	L.F.	0'- 4' Cut	$ 11.00	$ 8,800.00	$	$
(b)	4,550	L.F.	4'- 6' Cut	$ 11.00	$50,050.00	$	$
(c)	2,150	L.F.	6'- 8' Cut	$ 12.00	$25,800.00	$	$
(d)	1,000	L.F.	8'-10' Cut	$ 13.00	$13,000.00	$	$
(e)	1,450	L.F.	10'-12' Cut	$ 14.00	$20,300.00	$	$
(f)	1,000	L.F.	12'-14' Cut	$ 15.00	$15,000.00	$	$
(g)	550	L.F.	14'-16' Cut	$ 18.00	$ 9,900.00	$	$
(h)	100	L.F.	16'-18' Cut	$ 22.00	$ 2,200.00	$	$
(i)	50	L.F.	18'-20' Cut	$ 27.00	$ 1,350.00	$	$
7.			10" Pipe Sewer				
(a)	50	L.F.	0'- 4' Cut	$ 10.75	$ 537.50	$	$
(b)	2,900	L.F.	4'- 6' Cut	$ 11.75	$ 34,075.00	$	$
(c)	2,800	L.F.	6'- 8' Cut	$ 12.75	$ 35,700.00	$	$
(d)	900	L.F.	8'-10' Cut	$ 13.75	$ 12,375.00	$	$
(e)	500	L.F.	10'-12' Cut	$ 14.75	$ 7,375.00	$	$
(f)	200	L.F.	12'-14' Cut	$ 15.75	$ 3,150.00	$	$
(g)	200	L.F.	14'-16' Cut	$ 17.75	$ 3,550.00	$	$
(h)	50	L.F.	16'-18' Cut	$ 22.00	$ 1,100.00	$	$
(i)	50	L.F.	18'-20' Cut	$ 24.00	$ 1,200.00	$	$
(j)	50	L.F.	20'-22' Cut	$ 37.00	$ 1,850.00	$	$
(k)	50	L.F.	22'-24' Cut	$ 52.00	$ 2,600.00	$	$
8.			8" Pipe Sewer				
(a)	700	L.F.	0'- 4' Cut	$ 9.00	$ 6,300.00	$	$
(b)	1,400	L.F.	4'- 6' Cut	$ 9.50	$ 13,300.00	$	$
(c)	2,600	L.F.	6'- 8' Cut	$ 10.00	$ 26,000.00	$	$

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	PVC Pipe Unit Price	PVC Pipe Total Price
8.	(Continued)						
(d)	1,100	L.F.	8'-10' Cut	$ 11.00	$12,100.00	$	$
(e)	350	L.F.	10'-12' Cut	$ 12.00	$ 4,200.00	$	$
(f)	100	L.F.	12'-14' Cut	$ 14.00	$ 1,400.00	$	$
(g)	50	L.F.	14'-16' Cut	$ 16.00	$ 800.00	$	$
(h)	50	L.F.	16'-18' Cut	$ 18.00	$ 900.00	$	$
(i)	50	L.F.	18'-20' Cut	$ 24.00	$ 1,200.00	$	$

Sub-Total, Item Nos. 6 to 8, inclusive, using lowest cost materials $ 316,112.50

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
9.			24" Ductile Iron Pipe		
(a)	50	L.F.	Installed in Casing	$ 37.00	$ 1,850.00
(b)	108	L.F.	0' - 4' Cut or on Piers	$ 37.00	$ 3,996.00
(c)	10	L.F.	4' - 6' Cut	$ 37.00	$ 370.00
(d)	10	L.F.	6' - 8' Cut	$ 37.00	$ 370.00
(e)	10	L.F.	8' - 10' Cut	$ 38.00	$ 380.00
(f)	10	L.F.	10' - 12' Cut	$ 39.00	$ 390.00
(g)	70	L.F.	12' - 14' Cut	$ 42.00	$ 2,940.00
(h)	20	L.F.	14' - 16' Cut	$ 47.00	$ 940.00
10.			20" Ductile Iron Pipe		
(a)	160	L.F.	0' - 4' Cut or on Piers	$ 32.00	$ 5,120.00
(b)	10	L.F.	4' - 6' Cut	$ 33.00	$ 330.00
(c)	21	L.F.	6' - 8' Cut	$ 34.00	$ 714.00
(d)	10	L.F.	8' - 10' Cut	$ 36.00	$ 360.00
11.			18" Ductile Iron Pipe		
(a)	240	L.F.	0' - 4' Cut or on Piers	$ 32.00	$ 7,680.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
11.	(Continued)				
(b)	155	L.F.	4' - 6' Cut	$ 33.00	$ 5,115.00
(c)	53	L.F.	6' - 8' Cut	$ 34.00	$ 1,802.00
12.			16" Ductile Iron Pipe		
(a)	320	L.F.	0' - 4' Cut or on Piers	$ 22.00	$ 7,040.00
(b)	72	L.F.	4' - 6' Cut	$ 23.00	$ 1,656.00
(c)	33	L.F.	6' - 8' Cut	$ 24.00	$ 792.00
(d)	214	L.F.	8' - 10' Cut	$ 25.00	$ 5,350.00
(e)	170	L.F.	10' - 12' Cut	$ 26.00	$ 4,420.00
(f)	20	L.F.	12' - 14' Cut	$ 27.00	$ 540.00
13.			12" Cast or Ductile Iron Pipe		
(a)	248	L.F.	0' - 4' Cut or on Piers	$ 18.00	$ 4,464.00
(b)	89	L.F.	4' - 6' Cut	$ 19.00	$ 1,691.00
(c)	5	L.F.	6' - 8' Cut	$ 21.00	$ 105.00
14.			10" Cast or Ductile Iron Pipe		
(a)	50	L.F.	Installed in Casing	$ 16.50	$ 825.00
(b)	73	L.F.	0' - 4' Cut or on Piers	$ 18.00	$ 1,314.00
(c)	29	L.F.	4' - 6' Cut	$ 19.00	$ 551.00
(d)	6	L.F.	6' - 8' Cut	$ 20.00	$ 120.00
15.			8" Cast or Ductile Iron Pipe		
(a)	68	L.F.	0' - 4' Cut or on Piers	$ 14.00	$ 952.00
(b)	9	L.F.	4' - 6' Cut	$ 15.00	$ 135.00
(c)	8	L.F.	6' - 8' Cut	$ 16.00	$ 128.00
(d)	5	L.F.	8' - 10' Cut	$ 17.00	$ 85.00
16.			Concrete Collars for Jointing Sewer Pipe to Iron Pipe		
(a)	6	Ea.	24" Pipe	$ 250.00	$ 1,500.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
16. (Continued)					
(b)	18	Ea.	18" Pipe	$ 250.00	$ 4,500.00
(c)	4	Ea.	15" Pipe	$ 250.00	$ 1,000.00
(d)	12	Ea.	12" Pipe	$ 200.00	$ 2,400.00
(e)	4	Ea.	10" Pipe	$ 200.00	$ 800.00
(f)	8	Ea.	8" Pipe	$ 200.00	$ 1,600.00
Sub-Total, Item Nos. 9 to 16, inclusive					$ 74,325.00 ✓
17.			6'-0" Dia. Manholes		
(a)	1	Ea.	6' - 8' Deep	$ 1,000.00	$ 1,000.00
(b)	2	Ea.	12' - 14' Deep	$ 1,400.00	$ 2,800.00
18.			5'-0" Dia. Manholes		
(a)	1	Ea.	8' - 10' Deep	$ 800.00	$ 800.00
(b)	2	Ea.	14' - 16' Deep	$ 1,280.00	$ 2,560.00
(c)	2	Ea.	16' - 18' Deep	$ 1,440.00	$ 2,880.00
19.			4'-0" Dia. Manholes		
(a)	2	Ea.	0' - 4' Deep	$ 200.00	$ 400.00
(b)	31	Ea.	4' - 6' Deep	$ 300.00	$ 9,300.00
(c)	119	Ea.	6' - 8' Deep	$ 400.00	$ 47,600.00
(d)	58	Ea.	8' - 10' Deep	$ 500.00	$ 29,000.00
(e)	37	Ea.	10' - 12' Deep	$ 600.00	$ 22,200.00
(f)	21	Ea.	12' - 14' Deep	$ 700.00	$ 14,700.00
(g)	19	Ea.	14' - 16' Deep	$ 800.00	$ 15,200.00
(h)	5	Ea.	16' - 18' Deep	$ 900.00	$ 4,500.00
(i)	5	Ea.	18' - 20' Deep	$ 1,000.00	$ 5,000.00
(j)	3	Ea.	20' - 22' Deep	$ 1,100.00	$ 3,300.00
(k)	1	Ea.	22' - 24' Deep	$ 1,200.00	$ 1,200.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
19.	(Continued)				
(l)	1	Ea.	24' - 26' Deep	$ 1,300.00	$ 1,300.00
Sub-Total, Item Nos. 17 to 19, inclusive					$ 163,740.00 ✓
20.			Drop Connections to Manholes Fittings, Foundation and Encasement Min. Dimension "A"		
(a)	1	Ea.	21" x 18"	$ 650.00	$ 650.00
(b)	2	Ea.	15" x 12"	$ 550.00	$ 1,100.00
(c)	1	Ea.	10" x 8"	$ 450.00	$ 450.00
(d)	4	Ea.	8" x 8"	$ 450.00	$ 1,800.00
21.			Riser and Encasement In Excess of Dimension "A"		
(a)	4	V.Ft.	18" Drop	$ 100.00	$ 400.00
(b)	9	V.Ft.	12" Drop	$ 100.00	$ 900.00
(c)	30	V.Ft.	8" Drop	$ 75.00	$ 2,250.00
22.			Connections to Existing Manholes		
(a)	2	Ea.		$ 300.00	$ 600.00
23.			Connections to Existing Sewers		
(a)	6	Ea.	8" Connection	$ 300.00	$ 1,800.00
24.			Manhole Frames and Covers (In Place)		
(a)	17	Ea.	460# Standard	$ 140.00	$ 2,380.00
(b)	4	Ea.	460# Watertight	$ 150.00	$ 600.00
(c)	173	Ea.	350# Standard	$ 120.00	$ 20,760.00
(d)	103	Ea.	350# Watertight	$ 140.00	$ 14,420.00
(e)	13	Ea.	Vented	$ 140.00	$ 1,820.00
Sub-Total, Item Nos. 20 to 24, inclusive					$ 49,930.00
25.	1	L.S.	Upper Middle Oconee Pumping Station	$ L.S.	$ 25,000.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
26.			Piers Type "A-1"		
(a)	10	Ea.	0' - 4' High	$ 550.00	$ 5,500.00
(b)	2	Ea.	4' - 6' High	$ 750.00	$ 1,500.00
(c)	4	Ea.	6' - 8' High	$ 950.00	$ 3,800.00
27.			Piers Type "A-3"		
(a)	1	Ea.	8' - 10' High	$ 1,000.00	$ 1,000.00
(b)	4	Ea.	10' - 12' High	$ 1,200.00	$ 4,800.00
(c)	1	Ea.	12' - 14' High	$ 1,400.00	$ 1,400.00
28.			Railroad Crossing		
(a)	51	L.F.	48" Tunnel Liner - 12 gauge Sta. 105+53.5 to Sta. 106+04.5 (Upper Middle Oconee Interceptor)	$ 450.00	$ 22,950.00
29.			Highway Crossings		
(a)	50	L.F.	24" Steel Casing - 0.500 Wall Sta. 95+90 to Sta. 96+40 (Stockdale Creek Interceptor)	$ 45.00	$ 2,250.00
30.			River Crossings		
(a)	1	L.S.	24" D.I. Pipe, including Stl. Sheet Piling and Crushed Stone Bedding - Sta. 122+08 to Sta. 123+30 (Middle Oconee River @ U.M.O.R. Interceptor)	$250.000.00	$ 250.000.00
(b)	1	L.S.	36" D.I. Pipe, including Stl. Sheet Piling and Concrete Bedding - Sta. 8+34 to Sta. 9+94 (Middle Oconee River @ McNutt Creek Interceptor)	$250,000.00	$ 250,000.00
(c)	1	L.S.	20" Steel Pipe on Piers - 0.500 Wall - Sta 7+87 to Sta. 10+00 (Middle Oconee @ Mitchell Bridge Road)	$ 75,000.00	$ 75,000.00
31.			Remove and Replace Pavement		
(a)	2,750	L.F.	Remove Pavement	$ 1.00	$ 2,750.00
(b)	2,750	L.F.	Replace 8" Concrete or 12" Soil Cement Base Course	$ 6.00	$ 16,500.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
31.	(Continued)				
(c)	2,750	L.F.	Replace Hot Mix Asphalt	$ 3.00	$ 8,250.00
32.	11,300	Cu.Yd.	Rock Excavation	$ 20.00	$226,000.00
33.	750	Cu.Yd.	Earth Fill Over Sewers	$ 4.50	$ 3,375.00
34.	800	Cu.Yd.	Channel Excavation	$ 3.50	$ 2,800.00
35.	500	Sq.Yd.	Rip-Rap	$ 10.00	$ 5,000.00
Sub-Total, Item Nos. 25 to 35, inclusive					$907,875.00
36.			Extra Work If Ordered by Engineer		
(a)	20	Cu.Yd.	Concrete for Pipe Bedding, Plugging Pipe or Pipe Encasement	$ 60.00	$ 1,200.00
(b)	4	MBM	Timber Bracing or Sheeting, Left in Place	$ 0.10	$ 0.40
(c)	2,000	Cu.Yd.	Crushed Stone Stabilization, including Removal of Unsuitable Material	$ 12.00	$ 24,000.00
(d)	800	L.F.	Remove and Replace Sod	$ 5.00	$ 4,000.00
(e)	1,000	L.F.	Lawn Grassing	$ 2.50	$ 2,500.00
(f)	10,000	L.F.	Pasture Grassing	$ 0.75	$ 7,500.00
(g)	500	Cu.Yd.	Remove Unsuitable Trench Backfill and Replace With Suitable Backfill Material	$ 3.00	$ 1,500.00
(h)	100	L.F.	Pin Piling for Piers or Manholes	$ 10.00	$ 1,000.00
(i)	10	Cu.Yd.	Class "A" Concrete for Manholes on Piling	$ 250.00	$ 2,500.00
(j)	100	Lb.	Reinforcing Steel for Manholes on Piling	$ 0.50	$ 50.00
Sub-Total, Item No. 36					$ 44,250.40

TOTAL - DIVISION ONE, Item Nos. 1 to 36, inclusive, using lowest cost materials

TWO MILLION, SIX HUNDRED ELEVEN THOUSAND, THREE HUNDRED SEVEN AND 90/100 - - - - - - - - - - - - - Dollars ($ 2,611,307.90)

DIVISION TWO

SEWERS AND APPURTENANCES

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	Concrete Pipe Unit Price	Concrete Pipe Total Price
1.			36" Pipe Sewer				
(a)	1,100	L.F.	10'-12' Cut	$	$	$ 39.00	$ 42,900.00
(b)	200	L.F.	12'-14' Cut	$	$	$ 40.00	$ 8.000.00
(c)	50	L.F.	14'-16' Cut	$	$	$ 42.00	$ 2,100.00
(d)	50	L.F.	16'-18' Cut	$	$	$ 44.00	$ 2,200.00
2.			30" Pipe Sewer				
(a)	250	L.F.	0'- 4' Cut	$	$	$ 30.00	$ 7,500.00
(b)	700	L.F.	4'- 6' Cut	$	$	$ 30.00	$ 21,000.00
(c)	900	L.F.	6'- 8' Cut	$	$	$ 31.00	$ 27,900.00
(d)	1,500	L.F.	8'-10' Cut	$	$	$ 32.00	$ 48,000.00
(e)	1,050	L.F.	10'-12' Cut	$	$	$ 33.00	$ 34,650.00
(f)	400	L.F.	12'-14' Cut	$	$	$ 34.00	$ 13,600.00
(g)	100	L.F.	14'-16' Cut	$	$	$ 37.00	$ 3,700.00
(h)	100	L.F.	16'-18' Cut	$	$	$ 41.00	$ 4,100.00
(i)	50	L.F.	18'-20' Cut	$	$	$ 46.00	$ 2,300.00
(j)	50	L.F.	20'-22' Cut	$	$	$ 52.00	$ 2,600.00
(k)	50	L.F.	22'-24' Cut	$	$	$ 77.00	$ 3,850.00
(l)	50	L.F.	24'-26' Cut	$	$	$ 102.00	$ 5,100.00
3.			24" Pipe Sewer				
(a)	300	L.F.	0'- 4' Cut	$	$	$ 21.00	$ 6,300.00
(b)	4,000	L.F.	4'- 6' Cut	$	$	$ 21.00	$ 84,000.00
(c)	4,100	L.F.	6'- 8' Cut	$	$	$ 21.50	$ 88,150.00
(d)	4,250	L.F.	8'-10' Cut	$	$	$ 22.00	$ 93,500.00
(e)	2,100	L.F.	10'-12' Cut	$	$	$ 23.00	$ 48,300.00

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	Concrete Pipe Unit Price	Concrete Pipe Total Price
3.	(Continued)						
(f)	550	L.F.	12'-14' Cut	$	$	$ 24.00	$ 13,200.00
(g)	200	L.F.	14'-16' Cut	$	$	$ 26.00	$ 5,200.00
(h)	100	L.F.	16'-18' Cut	$	$	$ 30.00	$ 3,000.00
(i)	300	L.F.	18'-20' Cut	$	$	$ 35.00	$ 10,500.00
(j)	100	L.F.	20'-22' Cut	$	$	$ 40.00	$ 4,000.00
(k)	100	L.F.	22'-24' Cut	$	$	$ 52.00	$ 5,200.00
4.			15" Pipe Sewer				
(a)	600	L.F.	0'- 4' Cut	$	$	$ 14.00	$ 8,400.00
(b)	4,100	L.F.	4'- 6' Cut	$	$	$ 14.00	$ 57,400.00
(c)	7,600	L.F.	6'- 8' Cut	$	$	$ 14.50	$ 110,200.00
(d)	4,150	L.F.	8'-10' Cut	$	$	$ 15.50	$ 64,325.00
(e)	2,700	L.F.	10'-12' Cut	$	$	$ 16.50	$ 44,550.00
(f)	500	L.F.	12'-14' Cut	$	$	$ 17.50	$ 8,750.00
(g)	200	L.F.	14'-16' Cut	$	$	$ 18.50	$ 3,750.00
(h)	200	L.F.	16'-18' Cut	$	$	$ 22.00	$ 4,400.00
(i)	50	L.F.	18'-20' Cut	$	$	$ 27.00	$ 1,350.00

Sub-Total, Item Nos. 1 to 4, inclusive, using lowest cost materials $ 893,925.00 ✓

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	PVC Pipe Unit Price	PVC Pipe Total Price
5.			12" Pipe Sewer				
(a)	300	L.F.	0'- 4' Cut	$ 11.00	$ 3,300.00	$	$
(b)	950	L.F.	4'- 6' Cut	$ 11.00	$ 10,450.00	$	$
(c)	1,650	L.F.	6'- 8' Cut	$ 12.00	$ 19,800.00	$	$
(d)	200	L.F.	8'-10' Cut	$ 13.00	$ 2,600.00	$	$
(e)	200	L.F.	10'-12' Cut	$ 14.00	$ 2,800.00	$	$

Item No.	Approx. Quan.	Unit	Description	Clay Pipe Unit Price	Clay Pipe Total Price	PVC Pipe Unit Price	PVC Pipe Total Price
5.	(Continued)						
(f)	300	L.F.	12'-14' Cut	$ 15.00	$ 4,500.00	$	$
(g)	50	L.F.	14'-16' Cut	$ 18.00	$ 900.00	$	$
(h)	50	L.F.	16'-18' Cut	$ 22.00	$ 1,100.00	$	$
6.			8" Pipe Sewer				
(a)	800	L.F.	0'- 4' Cut	$ 9.00	$ 7,200.00	$	$
(b)	4,300	L.F.	4'- 6' Cut	$ 9.50	$40,850.00	$	$
(c)	3,900	L.F.	6'- 8' Cut	$ 10.00	$39,000.00	$	$
(d)	600	L.F.	8'-10' Cut	$ 11.00	$ 6,600.00	$	$
(e)	200	L.F.	10'-12' Cut	$ 12.00	$ 2,400.00	$	$
(f)	150	L.F.	12'-14' Cut	$ 14.00	$ 2,100.00	$	$
(g)	100	L.F.	14'-16' Cut	$ 16.00	$ 1,600.00	$	$
(h)	100	L.F.	16'-18' Cut	$ 18.00	$ 1,800.00	$	$

Sub-Total, Item Nos. 5 to 6, inclusive using lowest cost materials $147,000.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
7.			30" Ductile Iron Pipe		
(a)	46	L.F.	0' - 4' Cut, or on Piers	$ 52.00	$ 2,392.00
(b)	5	L.F.	4' - 6' Cut	$ 52.00	$ 260.00
(c)	21	L.F.	6' - 8' Cut	$ 52.00	$ 1,092.00
(d)	5	L.F.	8' - 10' Cut	$ 58.00	$ 290.00
(e)	5	L.F.	10' - 12' Cut	$ 59.00	$ 295.00
8.			24" Ductile Iron Pipe		
(a)	280	L.F.	0' - 4' Cut, or on Piers	$ 47.00	$ 13,160.00
(b)	80	L.F.	4' - 6' Cut	$ 47.00	$ 3,760.00
(c)	44	L.F.	6' - 8' Cut	$ 48.00	$ 2,112.00
(d)	5	L.F.	8' - 10' Cut	$ 48.00	$ 240.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
8.	(Continued)				
(e)	5	L.F.	10' - 12' Cut	$ 48.00	$ 240.00
9.			16" Ductile Iron Pipe		
(a)	81	L.F.	Installed in Casing	$ 32.00	$ 2,592.00
(b)	149	L.F.	0' - 4' Cut, or on Piers	$ 33.00	$ 4,917.00
(c)	93	L.F.	4' - 6' Cut	$ 34.00	$ 3,162.00
(d)	74	L.F.	6' - 8' Cut	$ 35.00	$ 2,590.00
(e)	26	L.F.	8' - 10' Cut	$ 36.00	$ 936.00
(f)	5	L.F.	10' - 12' Cut	$ 36.00	$ 180.00
(g)	10	L.F.	12' - 14' Cut	$ 36.00	$ 360.00
(h)	5	L.F.	14' - 16' Cut	$ 36.00	$ 180.00
(i)	5	L.F.	16' - 18' Cut	$ 36.00	$ 180.00
(j)	15	L.F.	18' - 20' Cut	$ 40.00	$ 600.00
10.			12" Cast or Ductile Iron Pipe		
(a)	185	L.F.	Installed Tunnel	$ 18.00	$ 3,330.00
(b)	46	L.F.	0' - 4' Cut, or on Piers	$ 18.00	$ 828.00
(c)	10	L.F.	4' - 6' Cut	$ 19.00	$ 190.00
(d)	106	L.F.	6' - 8' Cut	$ 20.00	$ 2,120.00
(e)	20	L.F.	8' - 10' Cut	$ 21.00	$ 420.00
11.			8" Cast or Ductile Iron Pipe		
(a)	40	L.F.	Installed in Casing	$ 12.00	$ 480.00
(b)	145	L.F.	0' - 4' Cut, or on Piers	$ 13.00	$ 1,885.00
(c)	79	L.F.	4' - 6' Cut	$ 14.00	$ 1,106.00
(d)	95	L.F.	6' - 8' Cut	$ 15.00	$ 1,425.00
12.			Concrete Collars for Jointing Sewer Pipe to Iron Pipe		
(a)	4	Ea.	30" Pipe	$ 500.00	$ 2,000.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
12.	(Continued)				
(b)	17	Ea.	24" Pipe	$ 250.00	$ 4,250.00
(c)	12	Ea.	15" Pipe	$ 250.00	$ 3,000.00
(d)	1	Ea.	12" Pipe	$ 200.00	$ 200.00
(e)	7	Ea.	8" Pipe	$ 200.00	$ 1,400.00
Sub-Total, Item Nos. 7 to 12, inclusive					$ 62,172.00 ✓
13.			6'-0" Dia. Manholes		
(a)	1	Ea.	6' - 8' Deep	$ 1,000.00	$ 1,000.00
(b)	2	Ea.	10' - 12' Deep	$ 1,200.00	$ 2,400.00
(c)	1	Ea.	12' - 14' Deep	$ 1,400.00	$ 1,400.00
14.			5'-0" Dia. Manholes		
(a)	1	Ea.	4' - 6' Deep	$ 600.00	$ 600.00
(b)	2	Ea.	6' - 8' Deep	$ 760.00	$ 1,520.00
(c)	3	Ea.	8' - 10' Deep	$ 920.00	$ 2,760.00
(d)	4	Ea.	10' - 12' Deep	$ 1,080.00	$ 4,320.00
(e)	3	Ea.	12' - 14' Deep	$ 1,240.00	$ 3,720.00
(f)	3	Ea.	14' - 16' Deep	$ 1,400.00	$ 4,200.00
(g)	1	Ea.	18' - 20' Deep	$ 1,700.00	$ 1,700.00
(h)	1	Ea.	22' - 24' Deep	$ 1,850.00	$ 1,850.00
(i)	1	Ea.	24' - 26' Deep	$ 2,000.00	$ 2,000.00
15.			4'-0" Dia. Manholes		
(a)	3	Ea.	0' - 4' Deep	$ 200.00	$ 600.00
(b)	23	Ea.	4' - 6' Deep	$ 300.00	$ 6,900.00
(c)	51	Ea.	6' - 8' Deep	$ 400.00	$20,400.00
(d)	46	Ea.	8' - 10' Deep	$ 500.00	$23,000.00
(e)	11	Ea.	10' - 12' Deep	$ 600.00	$ 6,600.00
(f)	16	Ea.	12' - 14' Deep	$ 700.00	$11,200.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
15. (Continued)					
(g)	7	Ea.	14' - 16' Deep	$ 800.00	$ 5,600.00
(h)	4	Ea.	16' - 18' Deep	$ 900.00	$ 3,600.00
(i)	2	Ea.	18' - 20' Deep	$ 1,000.00	$ 2,000.00
(j)	4	Ea.	20' - 22' Deep	$ 1,100.00	$ 4,400.00
(k)	4	Ea.	22' - 24' Deep	$ 1,200.00	$ 4,800.00
(l)	2	Ea.	24' - 26' Deep	$ 1,300.00	$ 2,600.00
(m)	4	Ea.	26' - 28' Deep	$ 1,400.00	$ 5,600.00
Sub-Total, Item Nos. 13 to 15, inclusive					$ 124,770.00
16.			Drop Connections to Manholes Fittings, Foundation and Encasement		
			Min. Dimension "A"		
(a)	1	Ea.	24" x 21"	$ 650.00	$ 650.00
(b)	2	Ea.	15" x 12"	$ 550.00	$ 1,100.00
(c)	1	Ea.	12" x 10"	$ 450.00	$ 450.00
(d)	1	Ea.	10" x 8"	$ 450.00	$ 450.00
(e)	3	Ea.	8" x 8"	$ 450.00	$ 1,350.00
17.			Riser and Encasement In Excess of Dimension "A"		
(a)	5	V.Ft.	21"	$ 100.00	$ 500.00
(b)	10.5	V.Ft.	12"	$ 100.00	$ 1,050.00
(c)	8.5	V.Ft.	10"	$ 100.00	$ 850.00
(d)	28.5	V.Ft.	8"	$ 75.00	$ 2,137.50
18.	3	Ea.	Connections to Existing Manholes	$ 300.00	$ 900.00
19.			Connections to Existing Sewers		
(a)	1	Ea.	10" Connection	$ 300.00	$ 300.00
(b)	5	Ea.	8" Connection	$ 300.00	$ 1,500.00
20.			Manhole Frames and Covers (In Place)		
(a)	4	Ea.	460# Standard	$ 140.00	$ 560.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
20.	(Continued)				
(b)	6	Ea.	460# Watertight	$ 150.00	$ 900.00
(c)	29	Ea.	350# Standard	$ 120.00	$ 3,480.00
(d)	133	Ea.	350# Watertight	$ 140.00	$ 18,620.00
(e)	28	Ea.	Vented	$ 140.00	$ 3,920.00
Sub-Total, Item Nos. 16 to 20, inclusive					$ 38,717.50
21.			Piers Type "A-1"		
(a)	10	Ea.	0' - 4' High	$ 550.00	$ 5,500.00
(b)	4	Ea.	4' - 6' High	$ 750.00	$ 3,000.00
(c)	1	Ea.	6' - 8' High	$ 950.00	$ 950.00
22.			Highway Crossings		
(a)	81	L.F.	48" Tunnel Liner - 12 Gauge Sta. 105+16 to Sta. 105+97 (Cedar Creek Interceptor)	$ 450.00	$ 36,450.00
(b)	40	L.F.	24" Steel Casing - 0.500 Wall Sta. 64+58 to Sta. 64+98 (Upper Cedar Creek Interceptor)	$ 45.00	$ 1,800.00
(c)	185	L.F.	48" Tunnel Liner - 12 Gauge Sta. 209+32 to Sta. 211+17 (Cedar Creek Interceptor)	$ 450.00	$ 83,250.00
23.			Remove and Replace Pavement		
(a)	1,000	L.F.	Remove Pavement	$ 1.00	$ 1,000.00
(b)	1,000	L.F.	Replace 8" Concrete or 12" Soil Cement Base Course	$ 6.00	$ 6,000.00
(c)	1,000	L.F.	Replace Hot Mix Asphalt	$ 3.00	$ 3,000.00
24.	8,200	Cu.Yd.	Rock Excavation	$ 20.00	$ 164,000.00
25.	100	Cu.Yd.	Earth Fill Over Sewers	$ 4.50	$ 450.00
26.	400	Cu.Yd.	Channel Excavation	$ 3.50	$ 1,400.00
Sub-Total, Item Nos. 21 to 26, inclusive					$306,800.00

Item No.	Approx. Quan.	Unit	Description	Unit Price	Total Price
27.			Extra Work If Ordered By Engineer		
(a)	20	Cu.Yd.	Concrete for Pipe Bedding, Plugging Pipe or Pipe Encasement	$ 60.00	$ 1,200.00
(b)	4	MBM	Timber Bracing or Sheeting, Left in Place	$ 0.10	$ 0.40
(c)	1,300	Cu.Yd.	Crushed Stone Stabilization, Including Removal of Unsuitable Material	$ 12.00	$ 15,600.00
(d)	500	L.F.	Remove and Replace Sod	$ 5.00	$ 2,500.00
(e)	1,000	L.F.	Lawn Grassing	$ 2.50	$ 2,500.00
(f)	10,000	L.F.	Pasture Grassing	$ 0.75	$ 7,500.00
(g)	500	Cu.Yd.	Remove Unsuitable Trench Backfill and Replace with Suitable Backfill Material	$ 3.00	$ 1,500.00
(h)	100	L.F.	Pin Piling for Piers or Manholes	$ 10.00	$ 1,000.00
(i)	10	Cu.Yd.	Class "A" Concrete for Manholes on Piling	$ 250.00	$ 2,500.00
(j)	100	Lb.	Reinforcing Steel for Manholes on Piling	$ 0.50	$ 50.00
(k)	100	Sq.Yd.	Rip-Rap	$ 10.00	$ 1,000.00
Sub-Total, Item No. 27					$ 35,350.40

TOTAL - DIVISION TWO, Item Nos. 1 to 27, inclusive, using lowest cost materials

ONE MILLION, SIX HUNDRED EIGHT THOUSAND, SEVEN HUNDRED THIRTY FOUR AND 90/100 -

- - - - - - - - Dollars ($ 1,608,734.90)

TOTAL - DIVISIONS ONE and TWO, using lowest cost materials FOUR

MILLION, TWO HUNDRED TWENTY THOUSAND, FORTY TWO AND 80/100 - - -

- - - - - - - - Dollars ($ 4,220,042.80)

DEDUCTION: For award of DIVISION ONE and TWO

as a single Contract - - - - - - - - - - - - - - - - - $ 375,000.00

The Bidder further proposes and agrees hereby to commence work under his Contract, with adequate force and equipment, on a date to be specified in a written order of the Engineer, and shall fully complete all work thereunder within the following time.

DIVISION ONE: 420 consecutive calendar days

DIVISION TWO: 310 consecutive calendar days

DIVISION ONE
and TWO: 420 consecutive calendar days

The Bidder declares that he understands that the quantities shown for unit price items, are approximate only and are subject to either increase or decrease and that should the quantities of any of the items of work be increased, the Bidder proposes to do the additional at the unit prices stated herein; and should the quantities be decreased, the Bidder also understands that payment will be made on the basis of actual quantities at the unit price bid and will make no claim for anticipated profits for any decrease in quantities, and that actual quantities will be determined upon completion of the work, at which time adjustment will be made to the Agreement amount by direct increase or decrease.

The undersigned further agrees that, in case of failure on his part to execute the Construction Agreement and the bond within ten (10) consecutive calendar days after written notice being given of the award of the contract, the check or bid bond accompanying this bid, and the monies payable thereon, shall be paid into the funds of the City of Athens, Georgia, as liquidated damages for such failure, otherwise the check or bid bond accompanying this Proposal shall be returned to the undersigned.

Attached hereto is a certified check on the ____________________

____________ Bank of ______________________________,

or a Bid Bond by the GULF INSURANCE COMPANY

in the amount of 10%

______________________________ Dollars ($____________)

made payable to the City of Athens, Georgia, in accordance with the conditions of the Advertisement and provisions herein.

Submitted: W. L. CAREY, GENERAL CONTRACTOR, INC.

By: W. L. CAREY

Title: PRESIDENT

(NOTE: If the Bidder is a corporation, the Proposal shall be signed by an officer of the corporation; if a partnership, it shall be signed by a partner. If signed by others, authority for signature shall be attached.)

Address: P. O. BOX 441, ROYSTON, GEORGIA 30662

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:

No. 1 Date 8-1-77 No. 3 Date 8-19-77

No. 2 Date 8-17-77 No. ___ Date ___

The full names and residences of persons and firms interested in the foregoing bid, as principals, are as follows:

W. L. CAREY, R.F.D. #1, BOX 103-B, ROYSTON, GEORGIA

EXPERIENCE AND REFERENCES

The Bidder shall here state what work he has done of similar nature to that bid for, and give references that will afford the Owner opportunity to judge as to experience, skill, business standing and financial ability.

CITY OF ATHENS, GEORGIA

CITY OF BUFORD, GEORGIA

CITY OF FRANKLIN SPRINGS, GEORGIA

GWINNETT COUNTY, GEORGIA

CONSTRUCTION AGREEMENT

THIS CONSTRUCTION AGREEMENT is made and entered into on the 25th day of November 1977, by and between W. L. CAREY, GENERAL CONTRACTOR, INC., party of the first part (hereinafter called the "Contractor") and the City of Athens, Georgia (hereinafter called the "Owner), the party of the second part.

WITNESSETH:

That the Contractor, for the consideration hereinafter fully set out hereby agrees with the Owner as follows:

1. That the Contractor will furnish all equipment, tools, materials, skill, and labor of every description, necessary to carry out, and to complete in a good, firm, substantial and workmanlike manner, the work specified, in strict conformity with the Drawings entitled:

ATHENS-CLARKE COUNTY, GEORGIA
SEWERAGE SYSTEM IMPROVEMENTS
CONTRACT "G"
FEBRUARY, 1976

on file in the office of the Owner and the Construction Specifications hereinafter set forth, which Drawings and Construction Specifications, together with the foregoing Bid, Advertisement for Bids, Instructions to Bidders and Special Provisions, General Conditions, Performance and Payment Bonds, and all Addenda hereto annexed, shall form essential parts of this Construction Agreement, as if fully contained herein. The work covered by this Construction Agreement includes all work as shown on the Drawings, specified, and listed in the attached Bid, under the following items, to wit:

DIVISION ONE ITEM NOS. 1 TO 36, INCLUSIVE AND DIVISION TWO, ITEM NOS. 1 TO 27 INCLUSIVE

2. That the Contractor shall commence the work to be performed under this Construction Agreement on a date to be specified in a written order from the Engineer and shall fully complete all work hereunder within 600 consecutive calendar days from that date, except as otherwise provided in these documents for extension of the above time limit. Time is of the essence of this Construction Agreement, and the Contractor shall pay to the Owner, not as a penalty, but as liquidated damages, the sum of one hundred dollars ($100.00) for each calendar day that he shall be in default of completing the work within the time limit named herein. Because of the difficulty of fixing damages suffered by the Owner on account of such default, damages are herein agreed upon as stated.

3. The Owner hereby agrees to pay to the Contractor for the faithful performance of this Construction Agreement, subject to additions and deductions as provided in the Construction Specifications or Bid, in lawful money of the United States, the sum of THREE MILLION, EIGHT HUNDRED FORTY FIVE THOUSAND, FORTY TWO AND 80/100 - - - - - Dollars ($ 3,845,042.80)

4. Payments on Account: Not later than the 15th day of each calendar month, as the work progresses, the Owner shall make partial payment to the Contractor up to 90% of the value of labor and materials incorporated in the work and of materials on hand at the site of the work for and including the last day of the preceding month, less payments already made and less deductions for any unaccepted or defective work. The Owner may also withhold from time to time payment to the Contractor in such an amount or amounts as may be necessary to pay and fully satisfy all claims and demands for labor and services rendered and materials furnished in and about the work as elsewhere provided for in these documents.

5. Final Payment: Upon written notice given to the Owner by the Contractor of the final completion of the work, the Engineer will make an inspection of the work and conduct a test, and if acceptable under the contract, shall issue a final certificate that the balance is due the Contractor. Upon completion of the thirty (30) day operating period the Owner shall make final payment to the Contractor of the balance due under the Contract, less such amounts as may have been withheld and employed by the Owner from time to time, as provided in the preceding paragraph, to pay all claims and demands for labor, service, and final payment the Contractor shall submit satisfactory evidence under oath that all payrolls and all amounts due for labor and materials and other indebtedness connected with the work have been fully paid and satisfied and that there are no outstanding claims or demands against the Contractor connected with the work.

6. It is further mutually agreed between the parties hereto that, if at any time after the execution of this Construction Agreement and the surety bond hereto attached for its faithful performance, the Owner shall deem the surety or sureites upon such bond to be unsatisfactory or, if for any reason, such bond ceases to be adequate to cover the performance of the work, the Contractor shall, at his expense, within five (5) days after the receipt of notice from the Owner so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the Owner. In such event no further payment to the Contractor shall be deemed to be due under this Construction Agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the Owner.

IN WITNESS WHEREOF, the parties hereto have executed this Construction Agreement under their respective seals on the day and date first above written in six (6) counterparts, each of which shall without proof or accounting for the other counterparts be deemed an original agreement.

ATTEST: (As to Contractor)

Signed and sealed in the presence of:

1. W. L. Carey Jr.

2. Walter Promer

(SEAL)

* CONTRACTOR

W. L. CAREY, GENERAL CONTRACTOR, INC.

By: W. L. Carey L.S.
W. L. CAREY

Title: PRESIDENT

ATTEST: (SEAL)

By: Betty S. Carey
Secretary

ATTEST:

By: J C Fowler
City Clerk

By:
Mayor

APPROVED AS TO FORM BEFORE EXECUTION

By: L.S.
Attorney for the Owner

*(NOTE: If the Contractor is a Corporation, the Construction Agreement shall be signed by the President or Vice-President, attested by the Secretary, and the corporate seal affixed. If the Contractor is a Partnership, the Construction Agreement shall be signed in the Partnership name by one of the partners, with indication that he is a general partner.)

PERFORMANCE BOND

CLARKE COUNTY)
) ss:
STATE OF GEORGIA)

KNOW ALL MEN BY THESE PRESENTS, that we, W. L. CAREY, GENERAL CONTRACTOR, INC., hereinafter known as the "Contractor", as principal, and GULF INSURANCE COMPANY, as surety, are held and firmly bound unto the City of Athens, Georgia, hereinafter known as the "Owner", in the penal sum of THREE MILLION, EIGHT HUNDRED FORTY FIVE THOUSAND, FORTY TWO AND 80/100 - - Dollars ($ 3,845,042.80) lawful money of the United States of America, to be paid to the Owner, for the use and benefit of the said obligee, and of all persons doing work or furnishing skill, tools, machinery or materials under or for the purpose of the contract hereinafter named, for which payment, well and truly to be made, we bind ourselves, our successors and our several respective heirs, assigns, executors and administrators, jointly and severally, firmly by these presents.

SEALED WITH OUR SEALS AND DATED THIS THE 28th DAY OF November 1977, ~~1975~~.

WHEREAS, the above bounden W. L. CAREY, GENERAL CONTRACTOR, INC. by an instrument in writing, bearing even date, with these presents, has contracted with the Owner to furnish all equipment, tools, materials, skill and labor for the completion of the work covered by the following items of the attached Proposal for constructing Sewerage System Improvements, to wit:

DIVISION ONE, ITEM NOS. 1 TO 36, INCLUSIVE, AND

DIVISION TWO, ITEM NOS. 1 TO 27, INCLUSIVE

All work to be performed in strict accordance with the attached Agreement or Contract and Specifications, which Contract is by reference made a part hereof:

NOW, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said W. L. CAREY, GENERAL CONTRACTOR, INC. shall complete the work provided for in said Contract according to the terms,

and shall save the obligee hereunder free from all costs and charges that may accrue on account of the doing of the work specified in the contract, and shall comply with the laws appertaining to said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

AND THE FURTHER CONDITION OF THIS OBLIGATION IS SUCH THAT IF

W. L. CAREY, GENERAL CONTRACTOR, INC., as Contractor,

shall fully and faithfully perform the work in accordance with the terms of the annexed contract therefor and the plans and specifications therein referred to, and provide the materials therein called for, and replace defective work or material for a period of one year after the completion of this contract, then

this obligation shall be null and void; otherwise, they, W. L. CAREY,

GENERAL CONTRACTOR, INC., as Contractor, and

GULF INSURANCE COMPANY, as surety,

jointly and severally agree to pay the Owner the difference between the sum to

which the said W. L. CAREY, GENERAL CONTRACTOR, INC.,

as Contractor, would be entitled in the completion of the Contract, and that which the Owner may be obliged to pay for the completion of the work by Contract, or otherwise, and agree to pay any damage, direct or indirect or consequential, which said Owner may sustain on account of such work or on account of the failure of said Contractor, properly and in all things to keep and execute the providions of the Contract.

And the said W. L. CAREY, GENERAL CONTRACTOR, INC.,

as Contractor, and GULF INSURANCE COMPANY,

as Surety, hereby further bind themselves, their successors, assigns, heirs, executors and administrators, jointly and severally, that they will indemnify and save harmless and will pay all amounts, damages, costs and judgments which may be recovered against, and all expenses incurred by, the Owner and all representatives of said Owner from or arising out of all or any suits, actions, or claims of any character brought on account of any injuries or damages sustained by any persons or property in consequence of any neglect in safeguarding the work, or any such suit or claim arising from any other act, omission, negligence or misconduct of the Contractor, his agents, representatives, servants and employees in the performance of said work or of the repair or maintenance thereof, or the manner of doing the same, or the neglect of said Contractor, or agents or servants, or the improper performance of the said work by the Contractor or agents or servants, or the infringement of any patent rights by reason of the use of any equipment or materials furnished under the said Contract, and will also pay any damages for delay in performance within the time agreed, as stated in the Contract; further, failure so to do with such persons, firms, partnerships or corporation shall give them a direct right of action against the principal and surety under this obligation.

As the said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the

Contract or to the work to be performed thereunder, or the Specifications accompanying the same, shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

Without limiting the effect of any other provisions herein contained, this Bond is to be construed as a statutory bond under the provisions of Section 23-1705 of the 1933 Code of Georgia as amended to date.

IN WITNESS WHEREOF, the said W. L. CAREY, GENERAL CONTRACTOR, INC. has caused ITS corporate seal to be hereto affixed, and these presents to be signed in its name by W. L. CAREY, PRESIDENT, and the said GULF INSURANCE COMPANY as surety, has caused ITS corporate seal to be hereto affixed and these presents to be signed in its name by Winnie L Norris.

(As to Contractor)

Signed, sealed and delivered
in the presence of:

W. L. Carey Jr.
Walter Cromer

*CONTRACTOR (SEAL)

W. L. CAREY, GENERAL CONTRACTOR, INC.

By: W L Carey
W. L. CAREY

Title: PRESIDENT

ATTEST:

Ruby S. Carey
Secretary

(As to Surety)

Signed, sealed and delivered
in the presence of:

Cindy L. Ricks
Karen E Sims

SURETY (SEAL)

GULF INSURANCE COMPANY

By: Winnie L Norris
Attorney in Fact

APPROVED AS TO FORM:

By:
City Attorney

COUNTERSIGNED:

By: L L Scruggs
Resident Agent
(Resident of Clarke County)

*(NOTE: If the Principal is a corporation, the bond shall be signed by the President or a Vice-President, attested by the Secretary and the corporate seal affixed. If the Principal is a partnership, the bond shall be signed in the partnership name by one of the partners, with indication that he is a general partner.)

Bond Approved
J C Fowler

[illegible]

PAYMENT BOND

CLARKE COUNTY)
) ss:
STATE OF GEORGIA)

KNOW ALL MEN BY THESE PRESENTS, that we, W. L. CAREY, GENERAL CONTRACTOR, INC., hereinafter known as the "Contractor", as principal, and GULF INSURANCE COMPANY, as surety, are held and firmly bound unto the City of Athens, Georgia, hereinafter known as the "Owner", in the penal sum of THREE MILLION, EIGHT HUNDRED FORTY FIVE THOUSAND, FORTY TWO AND 80/100 - - Dollars ($ 3,845,042.80) lawful money of the United States of America, to be paid to the Owner, for the use and benefit of the said obligee, and of all persons doing work or furnishing skill, tools, machinery or materials under or for the purpose of the Contract hereinafter named, for which payment, well and truly to be made, we bind ourselves, our successors and our several respective heirs, assigns, executors and administrators, jointly and severally, firmly by these presents.

SEALED WITH OUR SEALS AND DATED THIS 28th DAY OF November 1977, ~~1975~~.

WHEREAS, the above bounden W. L. CAREY, GENERAL CONTRACTOR, INC. by an instrument in writing, bearing even date, with these presents, has contracted with the Owner to furnish all equipment, tools, materials, skill and labor for the completion of the work covered by the following items of the attached Proposal for constructing Sewerage System Improvements, to wit:

DIVISION ONE, ITEM NOS. 1 TO 36, INCLUSIVE AND

DIVISION TWO, ITEM NOS. 1 TO 27, INCLUSIVE

All work to be performed in strict accordance with the attached Agreement or Contract and Specifications, which Contract is by reference made a part hereof:

NOW, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said W. L. CAREY, GENERAL CONTRACTOR, INC. and all subcontractors to whom any portion of the work provided for in the

attached Agreement or Contract is sublet and all assignees of the said

W. L. CAREY, GENERAL CONTRACTOR, INC.,

and of such subcontractors shall promptly make payments to all persons supplying him or them with labor, materials, or supplies for or in the prosecution of the work provided for in such Contract, or in any amendment or extension of or addition to said Contract, and for the payment of reasonable attorney's fees, incurred by the claimant or claimants in suits on said bond, then the above obligation shall be void; otherwise, to remain in full force and effect.

PROVIDED, however, that this bond is subject to the following conditions and limitations:

(a) Any person, firm or corporation that has furnished labor, materials or supplies for or in the prosecution of the work provided for in said Contract shall have a direct right of action against the Contractor and Surety on this bond, which right of action shall be asserted in a proceeding, instituted in the county in which the work provided for in said Contract is to be performed or in any county in which said Contractor or Surety does business. Such right of action shall be asserted in a proceeding instituted in the name of the claimant or claimants for his or their use and benefit against said Contractor and Surety or either of them (but not later than one year after the final settlement of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

(b) The Principal and Surety hereby designate and appoint the

CITY CLERK OF ATHENS, GEORGIA, as the agent of each of them to

receive and accept service of process or other pleading issued or filed in any proceeding instituted on this bond and hereby consent that such service shall be the same as personal service on the Contractor and/or Surety.

(c) In no event shall the Surety be liable for a greater sum than the penalty of this bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement of said Contract.

(d) This bond is given pursuant to the terms of Section 23-1705 of the 1933 Code of Georgia as amended as all the provisions of law with reference to this character of bond as set forth in said section or as may hereinafter be enacted are hereby made a part hereof to the same extent as if set out herein in full.

IN WITNESS WHEREOF, the said W. L. CAREY, GENERAL CONTRACTOR, INC.

has caused ITS corporate seal to be hereto affixed, and these presents to be

signed in its name by W. L. CAREY, PRESIDENT,

and the said GULF INSURANCE COMPANY,

as surety, has caused ITS corporate seal to be hereto affixed and these presents to be signed in its name by Winnie L. Norris.

(As to Contractor)

Signed, sealed and delivered
in the presence of:

W. L. Carey
Walter Kromer

*CONTRACTOR (SEAL)

W. L. CAREY, GENERAL CONTRACTOR, INC.

By: W. L. Carey
W. L. CAREY

Title: PRESIDENT

ATTEST:

Ruby S. Carey
Secretary

(As to Surety)

Signed, sealed and delivered
in the presence of:

Cindy F. Ricks
Karen E. Sims

SURETY (SEAL)

GULF INSURANCE COMPANY

By: Winnie L. Norris
Attorney in Fact

APPROVED AS TO FORM:

By:
City Attorney

COUNTERSIGNED:

By: L. L. Scruggs
Resident Agent
(Resident of Clarke County)

*(NOTE: If the Principal is a Corporation, the bond shall be signed by the President or a Vice-President, attested by the Secretary and the Corporate seal affixed. If the Principal is a Partnership, the bond shall be signed in the Partnership name by one of the partners, with indication that he is a general partner.)

Bond Approved
J C Fowler

ADVERTISEMENT FOR BIDS
FOR CONSTRUCTING
SEWERAGE SYSTEM IMPROVEMENTS
EPA PROJECT NO. C130351
CONTRACT "G", DIVISIONS ONE AND TWO
FOR
THE CITY OF ATHENS, GEORGIA

Sealed Proposals will be received by the City of Athens, Georgia, in the office of the City Clerk in City Hall until 2:30 P.M., local time, August 25, 1977, at which time and place they will be opened publicly and read. Bidders are requested to attend the Bid opening.

All prospective bidders are required to attend a pre-bid conference to be held in City Hall at 2:00 P.M., local time, on August 11, 1977. The representative attending the conference for the prospective bidder must be a certified officer of the company. The purpose of this conference is to discuss the nature of the proposed work and to answer questions concerning the plans and specifications. Should clarification or corrections to plans and/or specifications be required as a result of this meeting, addenda will be issued prior to bid opening. BIDS WILL NOT BE ACCEPTED FROM ANY CONTRACTOR WHO DOES NOT ATTEND THE PRE-BID CONFERENCE.

The work to be done consists of furnishing all materials, labor, and equipment for the construction of sanitary vitrified clay and/or PVC, or concrete pipe sewers with factory molded or O-ring type joints, one Sewage Pumping Station and all appurtenant work as shown on the drawings and specified. The work is divided into two divisions and may be awarded on a single contract or two separate contracts.

The work consists of, but is not limited to, furnishing and installing the following approximate quantities:

DIVISION ONE

A. Sewer Pipe

150 Lin. Ft.	36"
10,600 Lin. Ft.	24"
6,100 Lin. Ft.	21"
27,900 Lin. Ft.	18"
12,600 Lin. Ft.	15"
11,600 Lin. Ft.	12"
8,300 Lin. Ft.	10"
5,600 Lin. Ft.	8"

B. Ductile and/or Cast Iron Pipe Sewers

136 Lin. Ft.	36"
288 Lin. Ft.	24"
201 Lin. Ft.	20"
448 Lin. Ft.	18"
829 Lin. Ft.	16"
342 Lin. Ft.	12"
158 Lin. Ft.	10"
90 Lin. Ft.	8"

C. Manholes

3 Each 6' Diameter
5 Each 5' Diameter
302 Each 4' Diameter

D. 1 Submersible Pump, Pumping Station

E. 22 Concrete Piers

F. 51 Lin. Ft. 48" Dia. Tunnel Liner

G. 50 Lin. Ft. 24" Steel Casing

H. 3 River Crossings

DIVISION TWO

A. Sewer Pipe

1,400 Lin. Ft. 36"
5,200 Lin. Ft. 30"
16,100 Lin. Ft. 24"
20,100 Lin. Ft. 15"
3,700 Lin. Ft. 12"
10,200 Lin. Ft. 8"

B. Ductile and/or Cast Iron Pipe Sewers

82 Lin. Ft. 30"
414 Lin. Ft. 24"
463 Lin. Ft. 16"
367 Lin. Ft. 12"
359 Lin. Ft. 8"

C. Manholes

4 Each 6' Diameter
19 Each 5' Diameter
177 Each 4' Diameter

D. 15 Concrete Piers

E. 266 Lin. Ft. 48" Tunnel Liner

F. 40 Lin. Ft. 24" Steel Casing

Project Documents are open to public inspection at the office of the City Clerk, and may be obtained from Wiedeman and Singleton, Engineers, 1789 Peachtree Road, N.E., Atlanta, Georgia 30309, upon receipt of the following amounts:

Drawings and Specifications	$120.00
Drawings only	80.00
Specifications only	40.00

Upon the return of all documents in good condition within thirty (30) days after the Bid opening date, one-half of the deposit will be refunded. No refunds will be made for Drawings and Specifications returned after thirty (30) days, and for those returned in damaged condition.

A contract Performance Bond and a Payment Bond, each in an amount equal to one hundred (100%) per cent of the contract amount will be required.

Bids must be accompanied by a certified check or bid bond in an amount not less than ten (10%) per cent of the bid.

No bid may be withdrawn for a period of ninety (90) days after the closing time scheduled for receipt of bids.

The Owner reserves the right to reject all bids. Award of the contract, if it is awarded, will be made to the lowest responsive responsible bidder.

The schedule of minimum hourly rates of wages required to be paid to the various laborers and mechanics employed directly upon the site of the work, as determined by the Secretary of the U. S. Department of Labor, will be issued by addendum.

THIS PROJECT IS A REIMBURSABLE PROJECT UNDER THE ENVIRONMENTAL PROTECTION AGENCY, AND WILL BE REFERRED TO AS EPA PROJECT NO. C130351.

BIDDERS ON THIS WORK WILL BE REQUIRED TO COMPLY WITH THE PRESIDENT'S EXECUTIVE ORDERS NOS. 11426 AND 11375. THE REQUIREMENTS FOR BIDDERS AND CONTRACTORS UNDER THIS ORDER ARE EXPLAINED IN THE SPECIFICATIONS.

BIDDERS MUST COMPLY WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, THE DAVIS-BACON ACT, THE ANTI-KICKBACK ACT, THE CONTRACT WORK HOURS STANDARDS ACT, AND THE NATIONAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.

BIDDERS MUST CERTIFY THAT THEY DO NOT AND WILL NOT MAINTAIN OR PROVIDE EMPLOYEE'S FACILITIES WHICH ARE SEGREGATED ON A BASIS OF RACE, COLOR, CREED, AND NATIONAL ORIGIN.

ANY CONTRACT OR CONTRACTS AWARDED UNDER THIS INVITATION FOR BIDS ARE EXPECTED TO BE FUNDED IN PART BY A GRANT FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. NEITHER THE UNITED STATES NOR ANY OF ITS DEPARTMENTS, AGENCIES OR EMPLOYEES IS OR WILL BE A PARTY TO THIS INVITATION FOR BIDS OR ANY RESULTING CONTRACT.

CITY OF ATHENS, GEORGIA

By: Upshaw C. Bentley, Jr.
Mayor

WIEDEMAN AND SINGLETON
ENGINEERS
ATLANTA, GEORGIA

February, 1976

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That GULF INSURANCE COMPANY, a corporation of the State of Missouri, hereinafter called Company, Does hereby appoint

TRENTON TUNNELL, JR. OR CLARENCE M. GLENN OR WINNIE L. NORRIS OR WILLIAM E. PITTS OR WILLIAM L. HIX OR SPENCER S. BREWER OR DAVID M. COCHRANE, JR. OR CHARLES B. GRISARD OR TRAVIS G. HUFFINES, ATLANTA, GEORGIA

its true and lawful Attorney-in-fact to make, execute, seal and deliver on its behalf, as surety, any and all bonds and undertakings of Suretyship.

The execution of such bonds or undertakings in pursuance of these presents shall be as binding upon the Company as if they had been executed and acknowledged by the regularly elected officers of the Company.

This Power of Attorney is issued pursuant to and by authority of the following resolution of the Board of Directors of the Company, adopted effective September 29, 1961, and now in full force and effect:

"Resolved that the President or any Vice President or any Secretary may appoint Attorneys-in-fact in any State, Territory or Federal District to represent this company and to act on its behalf within the scope of the authority granted to them in writing, which authority may include the power to make, execute, seal and deliver on behalf of this Company as surety, and as its act and deed any and all bonds and undertakings of suretyship and other documents that the ordinary course of surety business may require, including authority to appoint agents for the service of process in any jurisdiction, State or Federal and authority to attest to the signature of the President or any Vice President or any Secretary and to verify any affidavit or other statement relating to the foregoing, and to certify to a copy of any of the by-laws of the Company and to any resolutions adopted by its Board of Directors; and any such Attorney-in-fact may be removed and the authority granted him revoked by the President or any Vice President or any Secretary or by the Board of Directors."

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following resolution voted by the Board of Directors of the Gulf Insurance Company at a meeting duly called and held on the 24th of July, 1973.

"Resolved that the signatures of Warren J. Kwedar, President, or of Frederick Boger, Senior Vice President, or of Arthur C. Werden, Vice President, or of Jack W. Maynard, Vice President, or of William E. Elston, Vice President, or of Douglas Simpson, Secretary, or of R. C. Fetherston, Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Attorneys-in-fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached."

In witness whereof, the Company has caused this Power of Attorney to be signed and its corporate seal to be affixed by its authorized officer this 13th day of Oct. 19 77.

(SEAL)

By J W Maynard
JACK W. MAYNARD VICE PRESIDENT

STATE OF TEXAS }
COUNTY OF DALLAS } ss:

On this 13th day of Oct. 19 77, before me, a Notary Public of the State and County aforesaid, residing therein, duly commissioned and sworn, personally came the above named officer of the Company, who being by me first duly sworn according to law, did depose and say that he is that officer of the Company described in and which executed the foregoing instrument; that he knows the seal of the Company; that the seal affixed to such instrument is the corporate seal of the Company; and that the corporate seal and his signature as such officer were affixed and subscribed to the said instrument by the authority and direction of the Company.

(SEAL)

Clifford R. Beard
CLIFFORD R. BEARD NOTARY PUBLIC

My commission expires the 30th day of June 19 78

CERTIFICATE

I, the undersigned, do hereby certify that the original Power of Attorney of which the foregoing is a true and correct copy is in full force and effect, and the foregoing resolution is a true and correct transcript from the records of the Company, and that the above named officer was on the date of execution of the foregoing Power of Attorney authorized to execute this Power of Attorney.

In witness whereof, I have hereunto subscribed by name and affixed the corporate seal of the Company this 28th day ~~19~~ of November 1977.

(SEAL)

Douglas Simpson
DOUGLAS SIMPSON SECRETARY

Form 1 S 977 (9-73)

CNF-1

CERTIFICATION OF NONSEGREGATED FACILITIES

The Contractor certifies that he does not, and will not, provide and maintain segregated facilities for his employees at his establishments and, further, that he does not, and will not, permit his employees to perform their services at those locations, under his control, where segregated facilities are provided and maintained. Segregated facilities include, but are not necessarily limited to, drinking fountains, transportation, parking, entertainment, recreation, and housing facilities; waiting, rest, wash, dressing, and locker rooms; and time clock, work, storage, restaurant, and other eating areas which are set apart in-fact, or by explicit directive, habit, local custom, or otherwise, on the basis of color, creed, national origin, and race. The Contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontractors exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

The Contractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract; the penalty for making false statements is prescribed in 18 U.S.C. 1001.

W. L. CAREY, GENERAL CONTRACTOR, INC.
(Contractor)

(Signature) 8-25-77 (Date)

W. L. CAREY, PRESIDENT
(Name and Title of Signer)

PS-EEO-1

CERTIFICATION BY PROPOSED SUBCONTRACTOR

regarding

EQUAL EMPLOYMENT OPPORTUNITY

____
(Name of Contractor)

Proposed Subcontractor's Name __________________________________
(Please Print)

Address and Zip Code ____
(Please Print)

____
(Please Print)

1. Proposed Subcontractor has participated in a previous contract or subcontract subject to the Equal Opportunity clause. Yes ( ) No ( )
(If answer is "Yes", identify the most recent contract.) ____________________
____
2. Compliance reports were required to be filed in connection with that contract or subcontract. Yes ( ) No ( )
(If answer is "Yes", identify the most recent contract.) ____________________
____
3. Proposed Subcontractor has filed all compliance reports due under applicable instructions, including SF-100. Yes ( ) No ( ) None Required ( )
4. If answer to Item 3 is "No", please explain in detail on reverse side of this Certification.

____

The above information is true and complete to the best of my knowledge and belief.

____________________________________ ____________________
Signature Date

____
Name and Title of Signer (Please Print)

NOTE: A wilful false statement is punishable by law - United States Code, Title 18, Section 1001.

PS-CNF-1

CERTIFICATION BY PROPOSED SUBCONTRACTOR

regarding

NONSEGREGATED FACILITIES

____
(Name of Contractor)

Proposed Subcontractor's Name ______________________________
(Please Print)

Address and Zip Code ______________________________
(Please Print)

____
(Please Print)

The Proposed Subcontractor certifies that he does not and will not, provide and maintain segregated facilities for his employees at his establishments and, further, that he does not, and will not, permit his employees to perform their services at these locations under his control, where segregated facilities are provided and maintained. Segregated facilities include, but are not necessarily limited to, drinking fountains, transportation, parking, entertainment, recreation, and housing facilities; waiting, rest, wash, dressing, and locker rooms; and time clock, work, storage, restaurants, and other eating areas which are set apart in-fact, or by explicit directive, habit, local custom, or otherwise, on the basis of color, creed, national origin, and race. The Proposed Subcontractor agrees that, except where he has obtained identical certifications from his suppliers for specific time periods, he will obtain identical certifications from those suppliers who are not exempt from the provisions of the Equal Opportunity clause prior to the award of contracts exceeding $10,000, and that he will retain such certifications in his files.

The Proposed Subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract; the penalty for making false statements is prescribed in 18 U.S.C. 1001.

______________________________ (Signature)

______________ (Date)

____
(Name and Title of Signer - Please Print)

GENERAL CONDITIONS

1. Contract Security: The Contractor shall furnish a surety performance bond (form attached) in an amount not less than 100 per cent of the contract price as security for the faithful performance of this contract. The Contractor shall also furnish a surety payment bond (form attached) in an amount not less than 100 per cent of the contract as security for the payment of all persons performing labor and furnishing materials in connection with this contract. The surety on each of the above bonds shall be a surety company satisfactory to the Owner and shall be duly authorized to do business in the State of Georgia. The person executing the bonds on behalf of the surety shall file with the bonds a general power-of-attorney unlimited as to amount and type of bond covered by that power-of-attorney; power-of-attorney shall be certified by an official of the surety.

2. Contractors' and Subcontractors' Insurance: The Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the Owner, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved.

(a) Compensation Insurance: The Contractor shall procure and shall maintain during the life of this contract Workmen's Compensation Insurance for all of the employees to be engaged in work on the project under this contract, and in case any such work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. In case any class of employees engaged in hazardous work on the project under this contract is not protected under the Workmen's Compensation statute, the Contractor shall provide and shall cause such subcontractor to provide a Workmen's Compensation policy for the protection of such of his employees not otherwise protected.

(b) Public Liability, Property Damage, and Automobile Liability Insurance. The Contractor shall take out and maintain during the life of the contract such Public Liability and Property Damage Insurance and Automobile Liability Insurance as shall protect him and any subcontractor performing work covered by this contract from claims for damage for personal injury including accidental death as well as from claims for property damage, which may arise from operations under this contract, whether such operations are by himself or by any subcontractor or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be as follows:

(1) Public Liability Insurance in an amount not less than $150,000.00 for bodily injury, including accidental death, to any one person, and subject to the same limit for each person, in an amount not less than $300,000.00 on account of one accident.

(2) Property Damage Insurance in an amount not less than $150,000.00 for any one damage claim, and in an aggregate amount up to $300,000.00 during a period of twelve (12) months.

(3) Automobile Liability Insurance: a. For bodily injury, including accidental death to any one person, in an amount not less than $150,000.00 and subject to the same limit for each person, in an amount not less than $300,000.00 on account of one accident; b. For property damage in an amount not less than $50,000.00 for any one accident claim and in an aggregate amount up to $150,000.00 during a period of twelve (12) months. Add rider to list Owner as additional insured.

(c) Owner's Protective Liability Insurance: Issued in the name of the Owner for liability and property damage in the same amounts as stipulated for the Contractor.

(d) Fire Insurance: The Contractor shall insure all work against loss or damage by fire and against loss or damage covered by the standard extended coverage insurance indorsement, the amount of the insurance at all times to be at least equal to the amount paid on account of work and materials. The policies shall be in the names of the Owner and the Contractor as their interests may appear.

(e) Flood Insurance: As required by the National Flood Insurance Program the Contractor shall insure The Upper Middle Oconee Pumping Station. The amount of the insurance shall be the amount bid for constructing the Pumping Station and shall remain in force until final acceptance of the facility by the Owner. Insurance policies under the National Flood Insurance Program can be obtained from any licensed property insurance agent or broker serving the eligible community, or from the National Flood Insurers Association (NFIA) servicing company for the State. The NFIA Servicing Company for the State of Georgia is: The Department of Housing and Urban Development, 1371 Peachtree Street., N.E., Atlanta, Georgia 30309, Telephone (404) 526-2391.

(f) Proof of Coverage of Insurance: The Contractor shall furnish the Owner with a certificate showing satisfactory proof of carriage of the insurance required prior to commencing work on his contract.

(g) Scope of Insurance: The insurance required under Paragraph (b) and (c) hereof shall provide adequate protection for the Contractor and his subcontractors, respectively, as well as the Owner, against damage claims which may arise from operations under this contract, whether such operations be by the insured or by anyone directly or indirectly employed by him.

3. Accident Prevention: Precaution shall be exercised at all times for protection of all persons, including employees, and property, and hazardous conditions shall be guarded against or eliminated. The Contractor shall be responsible for all injuries or damages to persons or property, and shall indemnify and save harmless the Owner, its officers and agents, from all damages and costs by reason of injury to persons or property, resulting from negligence or carelessness in the performance of the work or in guarding the same, or from any improper materials, implements, or appliances used in its construction, or on account of any act or omission by the Contractor, his agents or employees. The whole or as much of the monies due under and by virtue of this contract may be considered necessary by the Owner, shall or may be retained by the Owner until all suits or claims for damages shall have been settled, and evidence to that effect furnished to the satisfaction of the Owner. Safety and health facilities and procedures shall be in accord with the requirements of the National Occupational Safety and

Health Act of 1970. The Contractor shall comply with the Department of Labor's Safety and Health Regulations for Construction Promulgated under the National Occupational Safety and Health Act of 1970 (PL-596), and under Sec. 107 of the Contract Work Hours and Safety Standards Act (PL 91-54).

4. Laws: The construction of said project shall in all respects conform to all applicable requirements of State and Local laws and ordinances. The Contractor shall keep himself fully informed of all laws, ordinances and regulations of State, City and County in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency should be discovered in this contract, or in the Drawings or Specifications herein referred to, in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same in writing to the Owner. He shall at all times himself observe and comply with all such existing and future laws, ordinances and regulations, and shall protect and indemnify the Owner and its agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or by his employees. The Contractor shall abide by all local and state laws and regulations to the extent that such requirements do not conflict with Federal laws or regulations.

5. Reports, Records, and Data: The Contractor and each of his subcontractors shall submit to the Owner such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.

6. Payments to Contractor:

(a) Not later than the 15th day of each calendar month, provided estimates are promptly submitted, the Owner will make a partial payment to the Contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this contract, but to insure the proper performance of this contract, the Owner will retain ten per cent (10%) of the amount of each estimate until such time that the work, completed in a manner satisfactory to the Engineer, shall have a value of at least fifty per cent (50%) of the contract amount, excluding the value of stored material. No additional retainage will be withheld on future estimates.

(b) In preparing estimates the material delivered on the site and preparatory work done will be taken into consideration.

(c) All materials and work covered by partial payments shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all of the terms of the contract.

(d) Owner's Right to Withhold Certain Amounts and Make Application Thereof: The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The Contractor shall furnish satisfactory evidence that all obligations of the nature hereabove designated have been paid, discharged, or waived. If

the Contractor fails so to do, then the Owner may, after having served written notice on the said Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, whereupon payment to the Contractor shall be resumed, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to obligate the Owner to the Contractor or his Surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner, shall be considered as a payment made under the contract by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payment made in good faith.

7. Payments by Contractor: The Contractor shall pay (a) for all transportation and utility services not later than the 20th day of the calendar month following that in which services are rendered, (b) for all materials, tool, and other expendable equipment to the extent of 90% of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools and equipment are delivered at the site of the project, and the balance of the cost thereof not later than the 30th day following the completion of that part of the work in or on which such materials, tools, and equipment are incorporated or used, and (c) to each of his subcontractors, not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the work performed by his subcontractors to the extent of each subcontractor's interest therein.

8. Subcontracting:

(a) The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

(b) The Contractor shall not subcontract the complete work, or any major portion thereof, and shall not award any work to the subcontractor without prior written approval of the Owner. That approval will not be given until the Contractor submits to the Owner a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the Owner may require.

(c) The Contractor shall be as fully responsible to the Owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

(d) The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents.

(e) Nothing contained in this contract shall create any contractural relation between any subcontractor and the Owner.

9. Assignments: The Contractor shall not assign the whole or any part of this contract or any monies due or to become due hereunder without written consent by the Owner. In case the Contractor assigns all or any part of any monies due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to prior liens of all persons, firms, and corporations for services rendered or materials supplied for the performance of the work called for in this contract.

10. Time for Completion and Liquidated Damages: It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning, rate of progress, and the time for completion of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the work order. The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality. IF THE SAID CONTRACTOR SHALL NEGLECT, FAIL OR REFUSE TO COMPLETE THE WORK WITHIN THE TIME SPECIFIED, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work. The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain and said amount is agreed to be the amount of damages which the Owner would sustain and said amounts shall be retained from time to time by the Owner for current periodical estimates. It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is affixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

(a) To any preference, priority, or allocation order duly issued by the Government;

(b) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; and

(c) Provided, further, that the Contractor shall, within seven (7) days from the beginning of such delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

11. Construction Schedule and Periodic Estimates: Immediately after execution and delivery of the contract, and before the first partial payment is made, the Contractor shall deliver to the Owner an estimated construction progress schedule in form satisfactory to the Owner, showing the proposed dates of commencement and completion of each of the various subdivisions of work required under the Contract Documents and the anticipated amount of each monthly payment that will become due the Contractor in accordance with the progress schedule. The Contractor shall also furnish a detailed estimate giving a complete breakdown of the contract price and periodic itemized estimate of work done for the purpose of making partial payments thereon. The costs employed in making up any of these schedules will be used only for determining the basis of partial payments and will not be considered as fixing a basis for additions to or deductions from the contract price.

12. Mutual Responsibility of Contractors: If, through acts of neglect on the part of the Contractor, any other contractor or any subcontractor shall suffer loss or damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration if such other contractor or subcontractor will so settle. If such other contractor or subcontractor shall assert any claim against the Owner on account of any damage alleged to have been sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any such claim.

13. Extras: Without invalidating the contract, the Owner may order extra work or make changes by altering, adding or deducting from the work, the contract sum being adjusted accordingly, and the consent of the Surety being first obtained where necessary or desirable. All the work of the kind bid upon shall be paid for at the price stipulated in the Proposal, and no claim for any extra work or materials shall be allowed unless the work is ordered in writing by the Owner or its Engineer, acting officially for the Owner, and the price is stated in such order.

14. Changes in Work: Should the Contractor encounter, during the progress of the work, subsurface or latent site conditions which materially differ from those shown or specified or both, or encounter unknown conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Drawings and Specifications, the attention of the Owner shall be called immediately to such conditions before they are disturbed. The Owner shall thereupon promptly investigate the conditions and, if it finds that they do so materially differ, the contract shall be modified, with written approval to the Owner, to provide for any increase or decrease of cost or difference in time resulting from such conditions. No changes in work shall be made without prior written approval by the Owner. The Contractor shall furnish to the Owner, when required, an itemized breakdown of the quantities and prices used in computing the value of any change that might be ordered. In figuring changes, instructions for measurement of quantities set forth in the Specifications shall be followed. Charges and credits for the work covered by the approved change shall be determined by one or more, or a combination of the following methods:

(a) Unit bid prices stipulated in the Proposal or as subsequently approved, which unit prices shall include allowances for overhead and profit.

(b) An agreed lump sum.

(c) The actual cost, by keeping a correct account, including all vouchers for:

(1) Labor, including foremen.

(2) Materials entering permanently into the work.

(3) Ownership or rental cost of power tools and construction equipment actually used.

(4) Power and consumable supplies for operation of power equipment.

(5) Pro rata charges for insurance covering public liability, workmen's compensation, old age and unemployment, also social security.

To the cost of items under (c) above shall be added a fixed fee for combined overhead and profit, not to exceed fifteen (15%) per cent of the above items except that actual cost only will be allowed for social security, old age and unemployment insurance. The allowance for combined overhead and profit thus calculated shall be the only such allowance included in the total cost to the Owner.

15. Claims for Extra Cost: No claim for extra work or cost shall be allowed unless the same was done in pursuance of a written order from the Engineer, as aforesaid, and the claim presented with the first estimate after the change or extra work is done. When work is performed under the terms of Paragraph 14(c) of these General Conditions, the Contractor shall furnish satisfactory bills, payrolls, and vouchers covering all items of cost and, when requested by the Owner, give the Owner access to accounts relating thereto.

16. Materials, Service and Facilities.

(a) It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, lights, power, transportation, superintendence, temporary construction of every nature whatsoever to execute, complete, and deliver the work within the specified time.

(b) Any work necessary to be performed after regular working hours, on Sundays or Legal Holidays, shall be performed at no additional expense to the Owner.

17. "Or Approved Equivalent Clause": With the exception of major items of mechanical and electrical equipment, whenever a material or article required is specified or shown on the plans by using the name of the proprietary product or of a particular manufacturer or vendor, any material or article which will meet the design criteria and is equal in function and durability, as determined by the Engineer, will be considered acceptable.

18. Patents:

(a) The Contractor shall hold and save the Owner and its officers, agents, servants, and employees harmless from liability of any nature or kind, including cost and expenses, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or

used in the performance of the contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.

(b) If the Contractor uses any design, device, or materials covered by letters, patent or copyright, he shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device or material. It is mutually agreed and understood, that, without exception, the contract prices shall include all royalties or costs arising from the use of such design, device or materials, in any way involved in the work. The Contractor and/or his sureties shall indemnify and save harmless the Owner of the Project from any and all claims for infringement by reason of the use of such patented or copyrighted design, device or materials or any trademark or copyright in connection with work agreed to be performed under this contract, shall indemnify the Owner for any cost, expense or damage which it may be obliged to pay by reason of such infringement at any time during the prosecution of the work or after completion of the work.

19. Inspection and Testing of Materials: Unless otherwise specifically provided for in the Specifications, the inspection and testing of material and finished articles to be incorporated in the work at the site shall be made by bureaus, laboratories, or agencies arranged for by the Contractor and approved by the Owner. The Contractor shall pay for all laboratory inspection service as a part of the contract. The Contractor shall furnish all such extra quantities of materials and items as may be required for testing; and shall deliver same to the laboratory approved by the Owner. The cost of furnishing and delivering samples to the laboratory shall be paid for by the Contractor.

(a) Where the Specifications call for certified copies of mill or shop tests to establish conformance of certain materials with the Specifications, it shall be the responsibility of the Contractor to assure the delivery of such certifications to the Owner.

(b) No materials and finished articles shall be incorporated in the work until those materials and finished articles have passed the required tests. The Contractor shall promptly segregate and remove rejected material and finished articles from the site of the work.

(c) The testing and approval of materials by the laboratory, or laboratories, approved by the Owner shall not relieve the Contractor of any of his obligations to fulfill his contract and guarantee or workmanship and materials as called for in Paragraph 24 herein. The Contractor may, at his option and at his own expense, cause such other tests to be conducted as he may deem necessary to assure suitability, strength and durability of any material or finished article.

20. Right of the Owner to Terminate Contract: In the event that any of the provisions of this contract are violated by the Contractor, or by any of his subcontractors, the Owner may serve written notice upon the Contractor and the Surety of its intention to terminate the contract, such notices to contain the reasons for such intention to terminate the contract, and, unless within 10 days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction be made, the contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of such termination, the Owner shall

immediately serve notice thereof upon the Surety and the Contractor, and the Surety shall have the right to take over and perform the contract, provided, however, that if the Surety does not commence performance thereof within five (5) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account at the expense of the Contractor, and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned the Owner thereby, and in such event, the Owner may take possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefor.

21. Notice and Service Thereof:

(a) Notice to the Contractor from the Owner relative to any part of this Contract, shall be in writing and considered delivered and the service thereof completed, when said notice is posted by registered mail, to the said Contractor at his last given address, or delivered in person to said Contractor or his authorized representative on the work, or is deposited with the United States Postal Service in a sealed, postage prepaid envelope and the receipt thereof is acknowledged by the Contractor.

(b) All papers required to be delivered to the Owner shall, unless otherwise specified in writing to the Contractor, be delivered to the City Clerk, and any notice to or demand upon the Owner shall be sufficiently given if delivered to the office of said Clerk or if deposited with the United States Postal Service in a sealed, postage prepaid envelope, or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to said Clerk or to such other address as the Owner may subsequently specify in writing to the Contractor for such purposes.

22. Quantities of Estimate: The estimated quantities of work to be done and materials to be furnished under this Contract shown in any of the documents including the Proposal, are given for use in comparing bids and to indicate approximately the total amount of the Contract; and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed necessary or desirable by the Owner to complete the work contemplated by this Contract.

23. Lands: The Owner will furnish right-of-ways for the prosecution of this Contract and the work herein contemplated. All operations for the construction shall be conducted within the right-of-way provided. The Contractor shall make all necessary arrangements for land required for material and equipment.

24. General Warranty For One Year After Completion of Contract: For a period of at least one year after the completion of the Contract, the Contractor

shall warrant the fitness and soundness of all work and materials and equipment put in place under the contract, and neither the final certificate of payment nor any provision in the contract documents nor partial or entire occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with the contract documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall remedy any defects in the work and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of the work unless a longer period is specified. The Owner will give notice of observed defects with reasonable promptness.

25. Contractor's Obligations: The Contractor shall, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper and complete all work required by this contract, within the time herein specified, in accordance with the provisions of this contract and said specifications and in accordance with the plans and drawings of the work covered by this contract and any and all supplemental plans and drawings, and in accordance with the directions of the Engineer as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. He alone shall be responsible for the safety, efficiency, and adequacy of his plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or operation. The Contractor shall observe, comply with, and be subject to all terms, conditions, requirements, and limitations of the contract and specifications, and shall do, carry on, and complete the entire work to the satisfaction of the Engineer and the Owner.

26. Engineer's Authority: The Engineer shall give all orders and directions contemplated under this contract and specifications relative to the execution of the work. The Engineer shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said contract or specifications, the determination or decision of the Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected in any manner or to any extent by such question. The Engineer shall decide the meaning and intent of any portion of the specifications and of any plans or drawings where the same may be found obscure or be in dispute. Any differences or conflicts in regard to their work which may arise between the Contractor under this contract and other contractors performing work for the Owner shall be adjusted and determined by the Engineer.

27. Prohibited Interests: No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract, or in any part hereof. No officer, employee, architect, attorney,

engineer, or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the Project, shall become directly or indirectly interested personally in this contract, or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the Project.

28. Evidence of Payment: The Contractor shall furnish the Owner, whenever requested, with satisfactory evidence that all persons who have done work, or furnished materials under this Agreement have been duly paid or satisfactorily secured. In case such evidence is not furnished as aforesaid, such amounts as may be necessary to meet the claim of such unsatisfied person may be retained from monies due the Contractor under this contract, until liabilities aforesaid shall be fully discharged.

29. Acceptance of Work and Final Payment: Before final acceptance of the work and payment to the Contractor of the percentage retained by the Owner, the following requirements shall be complied with.

(a) Final Inspection: Upon notice from the Contractor that his work is completed, the Engineer will make a final inspection of the work, and shall notify the Contractor of all instances where his work fails to comply with the contract drawings and specifications as well as any defects he may discover. The Contractor shall immediately make such alterations as are necessary to make the work comply with the contract drawings and specifications, and to the satisfaction of the Engineer.

(b) Operating Test: After the alterations for compliance with the contract drawings and specifications have been made, and before acceptance of the whole or any part of the work, it shall be subjected to test to determine that it is in accordance with the contract drawings and specifications. The Contractor shall maintain all work in first-class condition for a thirty (30) day operating period after the work has been completed as a whole, the final inspection has been made, and the Engineer has notified the Contractor in writing that the work has been finished to his satisfaction. Necessary power, chemicals and materials required for operation will be furnished by the Owner during the specified operating period. The retained percentage as provided herein will not become due or payable to the Contractor until after the thirty (30) days operating period has expired. Should defects occur or be discovered during the 30 day operating period retainage will be held in the amount necessary to assure completion.

(c) Cleaning Up: Before the work is considered as complete, all rubbish and unused material due to or connected with the construction must be removed and the premises left in a condition satisfactory to the Owner. Streets, curbs, cross-walks, pavements, sidewalks, fence and other public and private property disturbed or damaged shall be restored to their former condition. Final acceptance will be withheld until such work is finished.

(d) Liens: Final acceptance of the work will not be granted and the retained percentage will not be due or payable until the Contractor has furnished the Owner proper and satisfactory evidence under oath that all claims for labor and material employed or used in the construction of the work under this contract have been settled, and that no legal claims can be filed against the Owner for such labor or material.

(e) Final Estimate: Upon completion of all cleaning up, alterations, and repairs required by the final inspection or operating test, the satisfactory completion of the operating test, and upon submitting proper and satisfactory evidence to the Owner that all claims have been settled, the Engineer will issue a certificate of final acceptance of the work. The Contractor shall then prepare his final estimate. After review and approval of the final estimate by the Engineer, the Owner, and representatives of the Environmental Protection Agency and of the State Water Pollution Control Agency, the payment shall then become due.

30. Acceptance of Final Estimate: The acceptance by the Contractor of the final estimate, shall operate as a release to the Owner from all claims and liabilities to the Contractor for all work done or materials furnished, or for any act of the Owner or its agents affecting the work.

31. Inspection by Agencies: The representative of the Environmental Protection Agency, and those of the Environmental Protection Division of the Georgia Department of Natural Resources, shall have access to the work wherever it is in preparation or progress; the Contractor shall provide proper facilities for that access and inspection. The Environmental Protection Agency Regional Administrator, the Comptroller General of the United States, or any authorized representative shall have access to any books, documents, papers, and records which are pertinent to the project for the purpose of making audit, examination, excerpts, and transcriptions thereof.

32. Labor Standards and Requirements:

(a) General: Contractors performing work on waste treatment projects federally assisted by the Environmental Protection Agency must fulfill requirements of the Davis-Bacon Act, the Copeland Anti-Kickback Act, the Contract Works Hours Standards Act, and Executive Nondiscrimination Orders No. 11246 and 11375. Section 601 of the Civil Rights Act also applies to this Project.

(b) Responsibility of Contractor:

(1) A copy of the wage determination shall be posted by the Contractor and maintained where it can be seen easily by all the employees.

(2) All employees working on the site shall be paid at least once a week.

(3) Rates of pay shall be not less than those shown on the wage determination for each classification.

(4) Employees shall be paid for overtime at one and one-half (1-1/2) regular rate for all time over eight (8) hours any day or over forty (40) hours any week - whichever is the greater overtime.

(5) Each employee shall be paid the full amount earned less only those deductions approved, allowed, or required by Federal, State, or Local statutes or ordinances.

(6) No classification of employees shall be employed on the Project unless either the classification appears on the wage determination, or the classification has the provisional approval of the Environmental Protection Agency.

(7) Apprentices shall be registered in a bona fide Apprenticeship Training Program registered with a State Apprenticeship Council

recognized by the Federal Committee on Apprenticeship or in a program registered with the Bureau of Apprenticeship, Department of Labor. Evidence of registration shall be furnished to the Owner for each individual apprenticeship prior to employment on the Project.

(8) Each week as work progresses the Contractor shall submit to the Owner a copy of all weekly payrolls and required attachments stipulated therein. Sample suggested payrolls may be obtained from the Owner upon request.

(9) All weekly payrolls shall contain or have attached the following:

a. Name of each employee. Also show address when employee is first entered on payrolls and whenever his adress changes thereafter.

b. Classification of employees (same as shown on wage determination or provisional approval).

c. Rate of pay not less than that shown on the wage determination.

d. Hours worked each day and total for each week for each employee.

e. All deductions made.

f. Net amount paid employees.

g. The following certification:

"I certify that the payroll is correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the Wage Determination Decision of the Secretary of Labor and that the classifications set forth for each laborer or mechanic conform with the work he performs".

_______________________________ (Signature)   _______________ (Title)

h. The following weekly anti-kickback statement:

"I, ______________________________, ______(Title)______ do hereby state: That I pay or supervise the payment of the persons employed by ___(contractor or subcontractor)___, on the __________(building or work)__________, that during the payroll period commencing on the _____ day of __________, 19___, and ending the ______day of ___________, 19___, all persons employed on said Project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly from the full weekly wages earned by any person, other than permissible

deductions, as defined in Regulations, Part 3 (29 CFR Part 3) issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948; 63 Stat. 108; 72 Stat. 967); (Paragraph describing deductions, if any)"

______________________________ (Signature) ______________ (Title)

(10) The Contractor shall include the Wage Determination and all labor standards provisions in all subcontracts as herein specified.

(11) The Contractor shall make employment records available for inspection by authorized representatives of the Environmental Protection Agency and the Department of Labor, and shall permit employees to be interviewed during working hours by those representatives. Payroll records shall be maintained during the course of the work by the Contractor, including a copy of the payroll of each Subcontractor, and they shall be preserved for a period of three (3) years thereafter.

(12) Each monthly engineering estimate shall be accompanied by the following certificate executed by the Contractor employing mechanics and laborers at the site on work in which the Federal Government is to participate.

Contractor ______________________________

Project Name ______________________________

Environmental Protection Agency Project No. ______________

I, ______ (name and title) ______, as offical representatives of the above named Contractor do hereby certify as follows:

> All Labor Standards Requirements have been fulfilled by the Contractor and all subcontractors under this contract:
> OR
> There is an honest dispute regarding the required provisions.
>
> Explanation: ______________________________
>
> ______________________________
>
> ______________________ (Signature) ______________ (Title) ______________ (Date)

(13) Contractor shall comply with Executive Nondiscrimination Order No. 11246 requirements (see Bid Advertisement, Instructions to Bidders, and Contract Provisions).

(14) In the event of a violation of the Labor Standards provisions of the contract by the Contractor or any Subcontractor, the Owner

may, after notice to the Contractor, suspend further payments or proceed to terminate the contract as provided in the Labor Standards section of the contract.

(c) Labor Standards - Contract Provisions: The labor standards provisions contained on the following page and the United States Department of Labor Wage Determination for the Project shall be complied within the performance of all work under this Contract. Copies of the following notice shall be posted in conspicious places available to employees or applicants for employment.

NOTICE TO LABOR UNIONS OR OTHER ORGANIZATIONS OF WORKERS

NONDISCRIMINATION IN EMPLOYMENT

TO: ____
(Name of union or organization of workers)

The undersigned currently holds contract(s) with ____________________ (Name of Applicant) involving funds or credit of the U. S. Government or (a) subcontractor(s) with a prime contractor holding such contract(s).

You are advised that under the provisions of the above contract(s) or subcontract(s) and in accordance with Executive Order No. 11246, Section 202, dated September 24, 1965, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, creed, or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following:

HIRING, PLACEMENT, UPGRADING, TRANSFER OR DEMOTION, RECRUITMENT, ADVERTISING, OR SOLICITATION FOR EMPLOYMENT, TRAINING DURING EMPLOYMENT, RATES OF PAY OR OTHER FORMS OF COMPENSATION, SELECTION FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR TERMINATION.

This notice is furnished you pursuant to the provisions of the above contract(s) or subcontract(s) and Executive Order No. 11246.

____

____

____

/s/ ____________________________________
(Contractor or Subcontractor)

U.S. ENVIRONMENTAL PROTECTION AGENCY

LABOR STANDARDS PROVISIONS FOR FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

DAVIS-BACON ACT *(40 U.S.C. 276a-276a-7)*

(a) All mechanics and laborers, including apprentices and trainees, employed or working directly upon the site of the work shall be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Copeland Regulations (29 CFR Part 3)), the full amounts due at time of payment computed at wage rates not less than the aggregate of the basic hourly rates and the rates of payments, contributions, or costs for any fringe benefits contained in the wage determination decision of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and such laborers and mechanics. A copy of such wage determination decision shall be kept posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers.

(b) The Contractor may discharge his obligation under this clause to workers in any classification for which the wage determination decision contains:

(1) Only a basic hourly rate of pay, by making payment at not less than such basic hourly rate, except as otherwise provided in the Copeland Regulations (29 CFR Part 3); or

(2) Both a basic hourly rate of pay and fringe benefits payments, by making payment in cash, by irrevocably making contributions pursuant to a fund, plan, or program for, and/or by assuming an enforceable commitment to bear the cost of, bona fide fringe benefits contemplated by the Davis-Bacon Act, or by any combination thereof. Contributions made, or costs assumed, on other than a weekly basis shall be considered as having been constructively made or assumed during a weekly period to the extent that they apply to such period. Where a fringe benefit is expressed in a wage determination in any manner other than as an hourly rate and the Contractor pays a cash equivalent or provides an alternative fringe benefit, he shall furnish information with his payrolls showing how he determined that the cost incurred to make the cash payment or to provide the alternative fringe benefit is equal to the cost of the wage determination fringe benefit. In any case where the Contractor provides a fringe benefit different from any contained in the wage determination, he shall similarly show how he arrived at the hourly rate shown therefor. In the event of disagreement between or among the interested parties as to an equivalent of any fringe benefit, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination.

(c) The assumption of an enforceable commitment to bear the cost of fringe benefits, or the provision of any fringe benefits not expressly listed in section 1 (b)(2) of the Davis-Bacon Act or in the wage determination decision forming a part of the contract, may be considered as payment of wages only with the approval of the Secretary of Labor pursuant to a written request by the Contractor. The Secretary of Labor may require the Contractor to set aside assets, in a separate account, to meet his obligations under any unfunded plan or program.

(d) The Contracting Officer shall require that any class of laborers or mechanics, including apprentices and trainees, which is not listed in the wage determination decision and which is to be employed under the contract shall be classified or reclassified conformably to the wage determination decision, and shall report the action taken to the Secretary of Labor. If the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers or mechanics to be used, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination. Apprentices and trainees may be added under this clause only where they are employed pursuant to an apprenticeship or trainee program meeting the requirements of the Apprentices and Trainees clause below.

(e) In the event it is found by the Contracting Officer that any laborer or mechanic, including apprentices and trainees, employed by the Contractor or any subcontractor directly on the site of the work covered by this contract has been or is being paid at a rate of wages less than the rate of wages required by paragraph (a) of this clause, the Contracting Officer may (1) by written notice to the Prime Contractor terminate his right to proceed with the work, or such part of the work as to which there has been a failure to pay said required wages, and (2) prosecute the work to completion by contract or otherwise, whereupon such Contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

(f) Paragraphs (a) through (e) of the clause shall apply to this contract to the extent that it is (1) a prime contract subject to the Davis-Bacon Act, or (2) a subcontract also subject to the Davis-Bacon Act under such prime contract.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT—OVERTIME COMPENSATION *(40 U.S.C. 327-333)*

(a) The Contractor shall not require or permit any laborer or mechanic, including apprentices, trainees, watchmen, and guards, in any workweek in which he is employed on any work under this contract to work in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic, including apprentices, trainees, watchmen, and guards, receives compensation at a rate not less than one and one-half times his basic rate of pay for all such hours worked in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek, whichever is the greater number of overtime hours. The "basic rate of pay," as used in this clause, shall be the amount paid per hour, exclusive of the Contractor's contribution or cost for fringe benefits, and any cash payment made in lieu of providing fringe benefits, or the basic hourly rate contained in the wage determination, whichever is greater.

(b) In the event of any violation of the provisions of paragraph (a), the Contractor shall be liable to any affected employee for any amounts due, and to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including an apprentice, trainee, watchman, or guard, employed in violation of the provisions of paragraph (a) in the sum of $10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of 8 hours or in excess of the standard workweek of 40 hours without payment of the overtime wages required by paragraph (a).

APPRENTICES AND TRAINEES

(a) Apprentices shall be permitted to work as such only when they are registered, individually, under a bona fide apprenticeship program registered with a State apprenticeship agency which is recognized by the Bureau of Apprenticeship and Train-

ing, U.S. Department of Labor; or if no such recognized agency exists in a State, under a program registered with the aforesaid Bureau of Apprenticeship and Training. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate who is not a trainee as defined in paragraph (b) of this clause, and who is not registered as above, shall be paid the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor shall furnish to the Contracting Officer written evidence of the registration of his program and apprentices, as well as of the appropriate ratios allowed and the wage rates required to be paid thereunder for the area of construction, prior to using any apprentices in the contract work. The term "apprentice" means (1) a person employed and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau or (2) a person in his first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training, or a State Apprenticeship Council (where appropriate) to be eligible for probationary employment as an apprentice.

(b) Trainees shall be permitted to work as such when they are bona fide trainees employed pursuant to a program approved by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training. The term "trainee" means a person receiving on-the-job training in a construction occupation under a program which is approved (but not necessarily sponsored) by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training, and which is reviewed from time to time by the Manpower Administration to insure that the training meets adequate standards.

(c) In connection with contracts in excess of $10,000, the Contractor agrees as follows:

(1) The Contractor shall make a diligent effort to hire for performance of work under this contract a number of apprentices or trainees, or both, in each occupation, which bears to the average number of the journeymen in that occupation to be employed in the performance of the contract the applicable ratio as set forth in paragraph (d) of this clause.

(2) The Contractor shall insure that 25 percent of such apprentices or trainees in each occupation are in their first year of training, where feasible. Feasibility here involves a consideration of (i) the availability of training opportunities for first year apprentices, (ii) the hazardous nature of the work for beginning workers, and (iii) excessive unemployment of apprentices in their second and subsequent years of training.

(3) The Contractor shall, during the performance of the contract, to the greatest extent possible, employ the number of apprentices or trainees necessary to meet currently the requirements of paragraphs (c) (1) and (c)(2) of this clause.

(4) The Contractor shall maintain records of employment on this contract by trade of the number of apprentices and trainees, apprentices and trainees in first year of training, and of journeymen, and the wages paid and hours of work of such apprentices, trainees, and journeymen. In addition, the Contractor who claims compliance based on the criterion set forth in paragraph (c) (6) (ii) of this clause shall maintain such records of employment on all his construction work in the same labor market area, both public and private, during the performance of this contract. In each of the above cases the Contractor shall make such records available for inspection upon request of the Department of Labor or the Contracting Officer.

(5) The Contractor shall supply one copy of each of the written notices required in accordance with paragraph (c)(6)(iii) of this clause at the request of the Contracting Officer. The Contractor also agrees to supply at 3-month intervals during the performance of the contract and after completion of contract performance a statement describing steps taken toward making a diligent effort and containing a breakdown by craft, of hours worked and wages paid for first year apprentices and trainees, other apprentices and trainees, and journeymen. One copy of the statement will be sent to the Contracting Officer and one copy to the Secretary of Labor.

(6) The Contractor will be deemed to have made a "diligent effort" as required by paragraph (c)(1) if during the performance of this contract, he accomplishes at least one of the following three objectives: (i) The Contractor employs under this contract a number of apprentices and trainees by craft, at least equal to the ratios established in accordance with paragraph (d) of this clause, or (ii) the Contractor employs, on all his construction work, both public and private, in the same labor market area, an average number of apprentices and trainees by craft at least equal to the ratios established in accordance with paragraph (d) of this clause, or (iii) the Contractor (A) if covered by a collective bargaining agreement, before commencement of any work on the project, has given written notice to all joint apprenticeship committees, the local U.S. Employment Security Office, local chapter of the Urban League, Workers Defense League, or other local organizations concerned with minority employment, and the Bureau of Apprenticeship and Training Representative, U.S. Department of Labor, for the locality of the work; (B) if not covered by a collective bargaining agreement, has given written notice to all of the groups stated above, except joint apprenticeship committees, and will in addition notify all non-joint apprenticeship sponsors in the labor market area; (C) has employed all qualified applicants referred to him through normal channels (such as the Employment Service, the Joint Apprenticeship Committees, and where applicable, minority organizations and apprentice outreach programs who have been delegated this function) at least up to the number of such apprentices and trainees required by paragraph (d) of this clause; (D) notice, as referred to herein, will include at least the Contractor's name and address, the agency designation, the contract number, job site address, value of the contract, expected starting and completion dates, the estimated average number of employees in each occupation to be employed over the duration of the contract work, and a statement of his willingness to employ a number of apprentices and trainees at least equal to the ratios established in accordance with paragraph (d) of this clause.

(d) The Secretary of Labor has determined that the applicable ratios of apprentices and trainees to journeymen in any occupation for the purpose of this clause shall be as follows: (1) In any occupation the applicable ratio of apprentices and trainees to journeymen shall be equal to the predominant ratio for the occupation in the area, where the construction is being undertaken, set forth in collective bargaining agreements, or other employment agreements, and available through the Bureau of Apprenticeship and Training Representative, U.S. Department of Labor, for the applicable area; (2) for any occupation for which no ratio is found, the ratio of apprentices and trainees to journeymen shall be determined by the Contractor in accordance with the recommendations set forth in the Standards of the National Joint Apprentice Committee for the occupation, which are on file at offices of the U.S. Department of Labor's Bureau of Apprenticeship and Training; and (3) for any occupation for which no such recommendations are found, the ratio of apprentices and trainees to journeymen shall be at least one apprentice or trainee for every five journeymen.

PAYROLLS AND BASIC RECORDS

(a) The Contractor shall maintain payrolls and basic records relating thereto during the course of the work and shall preserve them for a period of 3 years thereafter for all laborers and mechanics, including apprentices, trainees, watchmen, and guards,

working at the site of the work. Such records shall contain the name and address of each such employee, his correct classification, rate of pay (including rates of contributions for, or costs assumed to provide, fringe benefits), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Contractor has obtained approval from the Secretary of Labor as provided in paragraph (c) of the clause entitled "Davis-Bacon Act," he shall maintain records which show the commitment, its approval, written communication of the plan or program to the laborers or mechanics affected, and the costs anticipated or incurred under the plan or program.

(b) The Contractor shall submit weekly a copy of all payrolls to the Contracting Officer. The Prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. The copy shall be accompanied by a statement signed by the Contractor indicating that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic, including apprentices and trainees, conform with the work he performed. Submission of the "Weekly Statement of Compliance" required under this contract and the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) shall satisfy the requirement for submission of the above statement. The Contractor shall submit also a copy of any approval by the Secretary of Labor with respect to fringe benefits which is required by paragraph (c) of the clause entitled "Davis-Bacon Act."

(c) The Contractor shall make the records required under this clause available for inspection by authorized representatives of the Contracting Officer and the Department of Labor, and shall permit such representatives to interview employees during working hours on the job.

COMPLIANCE WITH COPELAND REGULATIONS

The Contractor shall comply with the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) which are incorporated herein by reference.

WITHOLDING OF FUNDS

(a) The Contracting Officer may withhold or cause to be withheld from the Prime Contractor so much of the accrued payments or advances as may be considered necessary (1) to pay laborers and mechanics, including apprentices, trainees, watchmen, and guards, employed by the Contractor or any subcontractor on the work the full amount of wages required by the contract, and (2) to satisfy any liability of any Contractor for liquidated damages under paragraph (b) of the clause entitled "Contract Work Hours and Safety Standards Act—Overtime Compensation."

(b) If any Contractor fails to pay any laborer, mechanic, apprentice, trainees, watchman, or guard, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Prime Contractor, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased.

SUBCONTRACTS

The Contractor agrees to insert the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," "Subcontracts," and "Contract Termination—Debarment" in all subcontracts. The term "Contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "Prime Contractor."

CONTRACT TERMINATION—DEBARMENT

A breach of the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with the Copeland Regulations," "Withholding of Funds," and "Subcontracts" may be grounds for termination of the contract, and for debarment as provided in 29 CFR 5.6.

NONDISCRIMINATION PROVISIONS

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solications or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT —SAFETY AND HEALTH *(40 U.S.C. 327-333)*

(a) The contractor shall not require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety, as determined under construction safety and health standards promulgated by regulations of the Secretary of Labor.

(b) The contractor shall comply with the Department of Labor Safety and Health Regulations for Construction promulgated under section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327 et seq.).

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33. Elimination of Segregated Facilities: (For Government supply and service contracts, including construction invitations for bids shall have the following provision regarding nonsegregated facilities either on the face of the invitation or on a cover sheet, where contract awards exceeding $10,000 may result.)

NOTICE OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES

Bidders and offerors are cautioned as follows: By signing this bid or offer, the bidder or offeror will be deemed to have signed and agreed to the provisions of the "Certification of Nonsegregated Facilities" in this solicitation. The certification provides that the bidder or offeror does not maintain or provide for his employees facilities which are segrefated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that he will not maintain such segregated facilities. Failure of a bidder or offeror to agree to the Certification of Nonsegregated Facilities will render his bid or offer nonresponsive to the terms of solicitations involving awards of contracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause.

GC-21

CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to contracts, subcontracts, and agreements with Applicants who are themselves performing federally assisted construction contracts, exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause.)

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicity directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods).

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities, as required by the May 9, 1967, Order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.E., quarterly, semi-annually, or annually).

(Signature)	8-25-72 (Date)

W. L. CAREY PRESIDENT
(Name and Title of Signer - Please Type)

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

34. Notice to Bidders on Federally-Assisted Construction Contracts*.

(a) Application has been made or may be made to the Environmental Protection Agency for financial assistance to the work proposed under this solicitation. The Environmental Protection Agency, in implementation of EXECUTIVE ORDER No. 11246 (Equal Employment Opportunity), of September 24, 1965, requires its constituent Agencies which provide financial assistance to construction to conduct Equal Employment Opportunity Compliance Reviews prior to award wherever the prospective construction contract is in excess of $1 million. Prospective contracts exceeding $10,000, but less than $1 million, may also be reviewed at the option of the Environmental Protection Agency.

(b) Accordingly, the apparent low bidder under this solicitation should be prepared to attend a meeting that will be scheduled by the Environmental Protection Agency after opening of bids, but before award, where he will be requested to specify what affirmative action he has taken or proposes to take to assure equal employment opportunity on the Project. Until a determination has been made by the Environmental Protection Agency that a satisfactory compliance position exists on the part of the prospective contractor, and the determination has been concurred in by the Environmental Protection Agency, Office for Equal Opportunity, award of the contract will not be authorized.

*Does not apply to projects exceeding $500,000 in construction cost in the areas covered by the Atlanta, Philadelphia, Pittsburgh, and Washington, D. C. Plans.

Atlanta Plan:	Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties
Philadelphia Plan:	Bucks, Chester, Delaware, Montgomery, and Philadelphia
Pittsburgh Plan:	Allegheny County
Washington Plan:	District of Columbia, the Virginia Cities of Alexandria, Fairfax, and Falls Church, the Virginia Counties of Arlington, Fairfax, Loudon, and Prince William, and the Maryland Counties of Montgomery and Prince Georges.

Refer to the appropriate Plan requirements for applicable projects falling within the above geographical areas.

35. Minimizing Silting and Bank Erosion: During the construction, protective measures shall be taken and maintained to minimize or eliminate the eroding of banks, and the silting of creeks and rivers, which are adjacent to the work.

36. Minimizing By-Passing of Sewage: The work shall be scheduled in a manner which will minimize, or eliminate, the by-passing of sewage into nearby streams.

GC-23

CERTIFICATION BY PROPOSED PRIME OR SUBCONTRACTOR REGARDING EQUAL EMPLOYMENT OPPORTUNITY

W. L. CAREY, GENERAL CONTRACTOR, INC.
Name of Prime Contractor

C130351
Project No.

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246, Part II, Section 203(b), (30 F.R. 12319-25). Any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the Equal Opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicated that the prime or subcontractor has not filed a compliance report due under applicable instructions, such contractor shall be required to submit a compliance report.

CONTRACTOR'S CERTIFICATION

Contractor's Name: W. L. CAREY, GENERAL CONTRACTOR, INC.

Address:
P. O. BOX 441
ROYSTON, GEORGIA 30662

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity clause. YES X NO ____
2. Compliance Reports were required to be filed in connection with such contract or subcontract. YES X NO ____
   If YES, state what reports were filed and with what Agency.
3. Bidder has filed all compliance reports due under applicable instructions, including SF-100. YES
4. If answer to Item 3 is NO, please explain in detail on reverse side of this certification.

Certification - The information above is true and complete to the best of my knowledge and belief. (A willfully flase statement is punishable by law - U. S. Code, Title 18, Section 1001.)

W. L. CAREY, PRESIDENT
NAME AND TITLE OF SIGNER (PLEASE TYPE)

(SIGNATURE)

8-25-77
(DATE)

37. Restoration of Disturbed Areas: All areas disturbed by, or during, construction shall be restored to their original or better condition. This is not to be interpretated as to replacement of trees and undergrowth in undeveloped sections of the jobsite.

38. All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

39. Manufacturers and/or equipment which does not meet the specified experience period will be considered if the manufacturer or supplier provides a bond or cash deposit which will guarantee replacement of the equipment or process in the event of failure or unsatisfactory service. The period of time for which the bond or cash deposit is required shall be the same as the experience period of time specified.

40. Project Sign: The Contractor shall provide and erect a sign at any appropriate place near the project site, as approved by the Engineer. The sign shall be prepared in accordance with the attached detailed instructions. The Contractor shall protect and maintain the sign in good condition throughout the life of the Project.

41. Protection of Trees: There are a number of significant trees within the construction right-of-way. These trees shall be protected by the Contractor. Before commencing any work under this contract, the Contractor shall arrange for an on-site meeting with the Owner for the purpose of establishing specific trees and plants to be saved. Clearing and grubbing operations shall be reviewed with and must have the approval of the Owner. Trees or plants to remain shall not be injured or defaced. Excavation within the branch spread of trees to remain shall be performed in a manner that will cause the least damage to roots. Injured roots shall be pruned cleanly and backfilled as soon as possible. The trees which are scheduled to remain are valued at $200 per inch diameter measured breast high and the Contractor shall pay to the Owner an amount for each tree that has been damaged due to carelessness or unreasonable construction methods.

The Contractor shall notify the Owner of all damaged trees immediately after occurrence. The Owner and Contractor shall inspect the damaged trees and arrive at an equitable adjustment based on the value stated above. It is the intent of this paragraph to place responsibility for preservation of trees and natural ecology solely upon the Contractor within his construction area. This paragraph is not, however, to be interpreted as undue burden upon the Contractor but to require responsible control by him over his employees' action and those of his subcontractors. Any damage claims regarding trees will be viewed openly by the Owner.

42. Utilization of Small and Minority Businesses: Positive efforts shall be made to utilize small business and minority-owned business sources of supplies and services. Such efforts should allow these sources the maximum feasible opportunity to compete.

43. Archaeological Sites: There are a number of Archeological Sites within or adjacent to the construction areas. Those sites which have been classified as significant consist of three prehistoric sites adjacent to but not on the

construction right-of-way and five historic mill sites within the construction right-of-way. The three prehistoric sites will be flagged prior to construction and the Contractor shall not allow construction equipment over these sites. The proposed sewer lines through the mill sites have been located to cause least damage and the Contractor shall use extreme care to minimize damage to these sites.

APPENDIX C-2 - REQUIRED PROVISIONS - CONSTRUCTION CONTRACTS

SUPPLEMENTAL GENERAL CONDITIONS

1. GENERAL.
2. AUDIT; ACCESS TO RECORDS.
3. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA.
4. LABOR STANDARDS.
5. UTILIZATION OF SMALL OR MINORITY BUSINESS.
6. COVENANT AGAINST CONTINGENT FEES.
7. GRATUITIES.
8. PATENTS.
9. COPYRIGHTS AND RIGHTS IN DATA.
10. PROHIBITION AGAINST LISTED VIOLATING FACILITIES.

1. GENERAL:

(a) The Owner and the Contractor agree that the following supplemental general provisions shall apply to the work to be performed under this contract and that such provisions shall supersede any conflicting provisions of this contract.

(b) This contract is funded in part by a grant from the U. S. Environmental Protection Agency. Neither the United States nor the U. S. Environmental Protection Agency is a party to this contract. This contract is subject to regulations contained in 40 CFR 35.936, 35.938, and 35.939.

2. AUDIT; ACCESS TO RECORDS:

(a) The Contractor shall maintain books, records, documents and other evidence directly pertinent to performance of EPA grant work under this agreement in accordance with accepted business practice, appropriate accounting procedures and practices, and 40 CFR 30.605, 30.805, and 35.935-7. The Contractor shall also maintain the financial information and data used by the Contractor in the preparation or support of the cost submission required pursuant to 40 CFR 35.938-5 for any negotiated contract or change order and a copy of the cost summary submitted to the Owner. The United States Environmental Protection Agency, the Comptroller General of the United States, the United States Department of Labor, Owner, and (the State Water Pollution Control Agency), or any of their duly authorized representatives shall have access to such books, records, documents and other evidence for the purpose of inspection, audit and copying. The Contractor will provide facilities for such access and inspection.

(b) If this contract is a formally advertised, competitively awarded, fixed price contract, the Contractor agrees to make paragraphs (a) through (f) of this clause applicable to all negotiated change orders and contract amendments in excess of $10,000 affecting the contract price. In the case of all other prime contracts, the Contractor agrees to include paragraphs (a) through (f) of this clause in all his contracts and all tier subcontracts or change orders thereto directly related to project performance which are in excess of $10,000.

(c) Audits conducted pursuant to this provision shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing or audit agency(ies).

(d) The Contractor agrees to the disclosure of all information and reports resulting from access to records pursuant to paragraphs (a) and (b) above, to any of the agencies referred to in paragraph (a), above. Where the audit concerns the Contractor, the auditing agency will afford the Contractor an opportunity for an audit exit conference, and an opportunity to comment on the pertinent portions of the draft audit report. The final audit report will include the written comments, if any, of the audited parties.

(e) Records under paragraphs (a) and (b) above, shall be maintained and made available during performance on EPA grant work under this agreement and until three years from the date of final EPA grant payment for the project. In addition, those records which relate to any "Dispute" appeal under an EPA grant agreement, or litigation, or the settlement of claims arising out of such performance, or costs or items to which an audit exception has been taken, shall be maintained and made available until three years after the date of resolution of such appeal, litigation, claim or exception.

(f) The right of access conferred by this clause will generally be exercised (with respect to financial records) under (1) negotiated prime contracts, (2) negotiated change orders or contract amendments in excess of $10,000 affecting the price of any formally advertised, competitively awarded, fixed price contract, and (3) subcontracts or purchase orders under any contract other than a formally advertised, competitively awarded, fixed price contract. However, this right of access will generally not be exercised with respect to a prime contract, subcontract, or purchase order awarded after effective price competition. In any event, such right of access may be exercised under any type of contract or subcontract (1) with respect to records pertaining directly to contract performance, excluding any financial records of the Contractor, and (2) if there is any indication that fraud, gross abuse, or corrupt practices may be involved.

3. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA: (This clause is required by EPA and is applicable only to (1) any negotiated prime contract in excess of $100,000; (2) negotiated contract amendments or change orders in excess of $100,000 affecting the price of a formally advertised, competitively awarded, fixed price contract; or (3) any subcontract or purchase order in excess of $100,000 under a prime contract other than a formally advertised, competitively awarded, fixed price contract. However, this clause is not applicable for contracts or subcontracts to the extent that they are awarded on the

basis of effective price competition. The Owner may elect not to utilize this clause where any such negotiated contract or subcontract is $100,000 or less.)

(a) If the EPA Project Officer determines that any price (including profit) negotiated in connection with this contract, or any cost reimbursable under this contract, was increased by any significant sums because the Contractor, or any subcontractor furnished incomplete or inaccurate cost or pricing date or data not current as certified in his certification of current cost or pricing data (EPA Form 5700-41), then such price or cost or profit shall be reduced accordingly and the contract shall be modified in writing to reflect such reduction.

(b) Failure to agree on a reduction shall be subject to Article 30 (Arbitration) of the General Conditions of this contract.

(NOTE: Since the contract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with certain subcontracts, the Contractor may wish to include a clause in each such subcontract requiring the subcontractor to appropriately indemnify the Contractor. It is also expected that any subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower tier subcontractors.)

4. LABOR STANDARDS: The Contractor agrees that "construction" work (as defined by the Secretary of Labor) shall be subject to the following labor standards provisions, to the extent applicable:

(a) Davis-Bacon Act (40 U.S.C. 276a-276a-7);

(b) Contract Work Hours and Safety Standards Act (40 U.S.C. 327-33);

(c) Copeland Anti-Kickback Act (18 U.S.C. 874); and

(d) Executive Order 11246 (Equal Employment Opportunity) and implementing rules, regulations, and relevant orders of the Secretary of Labor or EPA; and the Engineer further agrees that this contract shall include and be subject to the "Labor Standards Provisions for Federally Assisted Construction Contracts" (EPA Form 5720-4) in effect at the time of execution of this agreement.

5. UTILIZATION OF SMALL AND MINORITY BUSINESS: In accordance with EPA policy as expressed in 40 CFR 35.936-7, the Contractor agrees that small business and minority business enterprises shall have the maximum practicable opportunity to participate in the performance of EPA grant-assisted contracts and subcontracts.

6. COVENANT AGAINST CONTINGENT FEES: The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bonafide employees or bonafide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach of violation of this warranty the Owner shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

7. GRATUITIES:

(a) The Owner may, by written notice to the Contractor, terminate the right of the Contractor to proceed under this contract if it is found, after notice and hearing, by the Owner that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor, to any official or employee of the Owner or of EPA with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performance of this contract: Provided, That the existence of the facts upon which the Owner makes such findings shall be in issue and may be reviewed in proceedings pursuant to Article 30 (Arbitration) of the General Conditions of this contract.

(b) In the event this contract is terminated as provided in paragraph (a) hereof, the Owner shall be entitled (1) to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the contract by the Contractor, and (2) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Owner) which shall be not less than three nor more than ten times the costs incurred by the Contractor in providing any such gratuities to any such officer or employee.

(c) The rights and remedies of the Owner provided in this clause shall not be exclusive and are in addition to any rights and remedies provided by law or under this contract.

8. PATENTS: If this contract involves research, developmental, experimental, or demonstration work, and any discovery or invention arises or is developed in the course of or under this contract, such invention or discovery shall be subject to the reporting and rights provisions of Subpart D of 40 CFR Part 30 and Appendix B to 40 CFR Part 30. In such case, the Contractor shall report the discovery or invention to EPA directly or through the Owner, and shall otherwise comply with the Owner's responsibilities in accordance with Subpart D of 40 CFR Part 30. The Contractor hereby agrees that the disposition of rights to inventions made under this contract shall be in accordance with the terms and conditions of the aforementioned Appendix B. The Contractor shall include provisions appropriate to effectuate the purposes of this condition in all subcontracts involving research, developmental, experimental, or demonstration work.

9. COPYRIGHT AND RIGHTS IN DATA: The Contractor agrees that any plans, drawings, specifications, computer programs, technical reports, operating manuals, or other "Subject Data" (as defined in Appendix C to 40 CFR Part 30) are subject to the rights of the United States, as set forth in Subpart D of 40 CFR Part 30 and in Appendix C to 40 CFR Part 30, including the right to use, duplicate and disclose such manuals, etc., in whole or in part, in any manner for any purpose whatsoever, and have others do so. For purposes of this article, "grantee" as used in Appendix C shall refer to the Contractor. If the material is copyrightable, the Contractor may copyright such, as permitted by Appendix C, and subject to the rights in the Government as set forth in Appendix C, but the Owner and the Federal Government reserve a royalty-free, nonexclusive, and irrevocable license to reproduce, publish and use such materials, in whole or in part, and to authorize others to do so. The Contractor shall include

provisions appropriate to effectuate the purposes of this condition in all subcontracts expected to produce copyrightable "Subject Data".

10. PROHIBITION AGAINST LISTED VIOLATING FACILITIES: (Applicable only to a contract in excess of $100,000 and when otherwise applicable pursuant to 40 CFR Part 15.)

(a) The Contractor agrees as follows:

(1) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Public Law 92-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, as amended by Public Law 92-500), respectively relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this contract.

(2) That no portion of the work required by this prime contract will be performed in a facility listed on the Environmental Protection Agency list of violating facilities on the date when this contract was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(3) To use his best efforts to comply with clean air and clean water standards at the facilities in which the contract is being performed.

(4) To insert the substance of the provisions of this clause, including this subparagraph (4), in any nonexempt subcontract.

(b) The terms used in this clause have the following meanings:

(1) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq. as amended by Public Law 92-604.

(2) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C.1251 et seq., as amended by Public Law 92-500).

(3) The term "Clean Air Standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are prohibitions in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(c) or Section 111(d), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

(4) The term "Clean Water Standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a state under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by a local

government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).

(5) The term "Compliance" means compliance with Clean Air or Water Standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an Air or Water Pollution Control Agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.

(6) The term "Facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor or subcontractor to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are located in one geographical area.

ENVIRONMENTAL
PROTECTION
AGENCY

ORDER

1015.1B

July 28, 1975

POLICY - AGENCY IDENTIFICATION

EPA IDENTIFICATION SIGNS AT PROJECT SITES

1. PURPOSE. This Order establishes the design and specifications for a sign to be displayed at the sites of projects which are operated or sponsored by EPA. The sign is intended to afford public awareness of the national involvement of EPA in environmental protection.

2. PROCEDURES. A Project Identification Sign shall be displayed in a prominent location at each publicly visible construction site and demonstration project sponsored or operated by EPA. The basic design of the sign shall be as illustrated in Figure 1. With the exception of (a) through (c) below, variations to the basic design shall be at the discretion of the grant awarding official or contracting officer.

a. The only Federal Government participant indicated shall be EPA. Names of Program Offices shall not appear.

b. Standardized coloring for all signs shall be as shown in Figure 1.

c. Identification signs at EPA-funded construction projects shall include prominent display of the pertinent EPA Grant Identification Number; e.g., C-012345-03 (Program Code-Six Digit Grant Serial-Two Digit Project Sequence Number) and shall include the statement "An Equal Employment Opportunity Project" as shown in Figure 1.

3. NOTIFICATION. The appropriate contracting officers or grant awarding officials are responsible for assuring that concerned parties (e.g., State and local agencies, prospective contractors and grantees, and interested consulting engineers) are notified of this requirement.

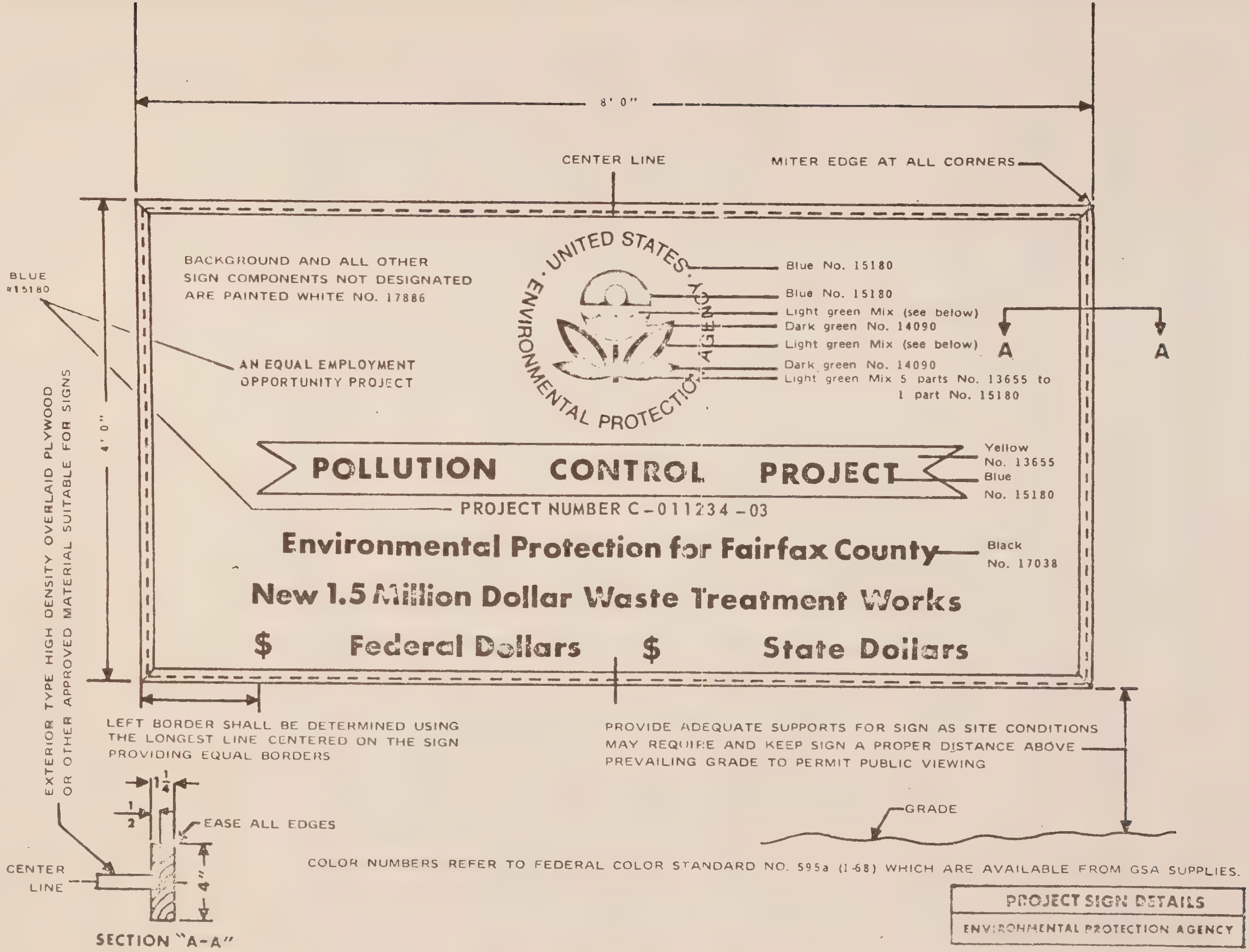
4. SUPERSESSION. EPA Order 1015.1A is superseded.

Alvin L. Alm

Alvin L. Alm
Assistant Administrator
for Planning and Management

Dist: Directives

Initiated by: PM-21


8' 0"
CENTER LINE
MITER EDGE AT ALL CORNERS
BLUE #15180
BACKGROUND AND ALL OTHER SIGN COMPONENTS NOT DESIGNATED ARE PAINTED WHITE NO. 17886
AN EQUAL EMPLOYMENT OPPORTUNITY PROJECT
UNITED STATES · ENVIRONMENTAL PROTECTION AGENCY
Blue No. 15180
Blue No. 15180
Light green Mix (see below)
Dark green No. 14090
Light green Mix (see below)
Dark green No. 14090
Light green Mix 5 parts No. 13655 to 1 part No. 15180
A
A
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POLLUTION CONTROL PROJECT
Yellow No. 13655
Blue No. 15180
PROJECT NUMBER C-011234-03
Environmental Protection for Fairfax County
Black No. 17038
New 1.5 Million Dollar Waste Treatment Works
$ Federal Dollars $ State Dollars
EXTERIOR TYPE HIGH DENSITY OVERLAID PLYWOOD OR OTHER APPROVED MATERIAL SUITABLE FOR SIGNS
LEFT BORDER SHALL BE DETERMINED USING THE LONGEST LINE CENTERED ON THE SIGN PROVIDING EQUAL BORDERS
PROVIDE ADEQUATE SUPPORTS FOR SIGN AS SITE CONDITIONS MAY REQUIRE AND KEEP SIGN A PROPER DISTANCE ABOVE PREVAILING GRADE TO PERMIT PUBLIC VIEWING
1 1/4
1/2
EASE ALL EDGES
4"
GRADE
CENTER LINE
SECTION "A-A"
COLOR NUMBERS REFER TO FEDERAL COLOR STANDARD NO. 595a (1-68) WHICH ARE AVAILABLE FROM GSA SUPPLIES.
PROJECT SIGN DETAILS
ENVIRONMENTAL PROTECTION AGENCY

Figure 1.

SECTION NO. 1

GENERAL REQUIREMENTS

1.01 Scope: This Section covers the General Requirements for work to be done, and Special Provisions pertaining to that work.

1.02 Drawings: The Drawings entitled "Athens-Clarke County, Georgia, Sewerage System Improvements - Contract 'G'", form a part of the Construction Agreement.

1.03 Specifications: The Specifications form a part of the Construction Agreement, and include this Section and Sections 2 through 6 as identified below:

Section Number	Title of Section
2	Control of Materials
3	Reinforcing Steel, Structural Steel, and Miscellaneous Metal
4	Concrete Work
5	Sewers and Appurtenances
6	Upper Middle Oconee Pumping Station

1.04 Work to be Done: Work to be done consists of furnishing all materials, equipment and labor necessary for constructing work as shown on the Drawings entitled "Athens-Clarke County, Georgia, Sewerage System Improvements, Contract "G", dated, February, 1976.

1.05 Working Drawings: The Contractor's attention is directed to the requirements of the "Instructions to Bidders and Special Provisions" with reference to Working Drawings. The Contractor shall submit five (5) copies of drawings and details, covering Reinforcing Steel, Structural Steel, Miscellaneous Metals, and such other items of work as may be necessary for successful completion of the work of the Project, to the Engineer for checking and approval. The Contractor shall check all Working Drawings for accuracy of dimensions and details, and for conformance with Drawings as required by the "Instructions to Bidders and Special Provisions". No fabrication, erection, or installation of work listed above shall commence until drawings and details covering such work have been approved by the Engineer.

1.06 Payment: No separate payment will be made for the work of this Section. The cost of the work, and all cost incidental thereto, shall be included in the price bid for the item to which the work pertains.

SECTION NO. 2

CONTROL OF MATERIALS

2.01 Source of Supply and Quality of Materials: The source of supply for all materials and equipment shall be submitted to the Engineer for approval before orders are placed. Suppliers of reinforcing steel, fabricated metal work, and metal castings may be required to submit guarantees of conformity with the Drawings and Specifications. Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer for examination and tested in accordance with the methods specified below. Only materials conforming to the requirements of the Specifications and approved by the Engineer shall be used in the work. All materials proposed to be used may be inspected or tested during their preparation and use. If, after inspection and testing, it is found that sources of supply which have been approved do not furnish a uniform product, or if the product proves unacceptable, the Contractor shall furnish material from other approved sources. No material, which after approval has become unfit for use, shall be used in the work.

2.02 Samples and the Testing of Materials: Unless otherwise specified, materials tests shall be made in accordance with the standards of the American Society for Testing and Materials, and by a commercial testing laboratory approved by the Engineer; reports of tests shall promptly be furnished to the Engineer. Tests shall be arranged by the Contractor when directed by the Engineer. The cost of all tests shall be paid by the Contractor.

2.03 Schedule of Materials and Standard Tests: The following materials, and the tests to which each is to be subjected, are listed below.

CEMENT:

(a) Less than carload lots - The brand of a mill in successful operation for at least one year.

(b) 1 car to 5 cars - Certificate of mill test to be furnished by producers of laboratory tests made as per (c) or (d).

(c) 5 cars and up - Independent Laboratory tests as per ASTM C150-74.

(d) Bin Tests - As for (c) with test bin sealed.

SAND: For use in Cement Concrete:

(a) 10 tons to 100 tons - Field tests only.

(1) Color for organic matter

(2) Decantation test for silt

(3) Sieve Analysis

(b) Each additional 100 tons - Independent Laboratory tests to indicate conformity with ATSM C33-74a.

STONE AND GRAVEL: For use in Cement Concrete:
(Blast furnace slag may be used in lieu of stone and gravel, when approved by the Engineer.)

(Coarse Aggregate)

(a) 10 tons - 200 tons - Similar to Sand (a)

(b) Each additional 200 tons - Similar to Sand (b)

CONCRETE:

Preliminary Tests

Cylinder Compression Tests of concrete made of cement and aggregate proposed to be used in the work; in accordance with ASTM C39-72. - Cylinder Compression Tests of concrete placed in the work, from samples taken at two different times during any major pour of structural concrete; in accordance with ASTM C39-72.

Preliminary tests shall include at least two cylinders; one to be broken at 7 days and one at 28 days.

Job tests shall include at least four cylinders for each test; two to be properly stored at the site; and two for laboratory tests, one to be broken at 7 days and one at 28 days.

PRECAST CONCRETE MANHOLE:

(a) Any quantity - Visual inspection for shape, uniformity, density, hammer test. Each section to be inspected and stamped by a regular employee of the approved testing laboratory.

(b) Any quantity - Laboratory tests in amount and character as per ASTM C478-74.

MANHOLE BRICK: Visual inspection for size, soundness, balls of clay, and particles of lime.

(a) 1 to 5 Thousand - Visual inspection for shape, color, soundness, freedom from cracks, balls of clay or particles of lime.

(b) For each additional 50 Thousand or part thereof - Absorption test and either compression or flexure tests, ASTM C67-73 by an independent laboratory.

VITRIFIED CLAY SEWER PIPE:

(a) Any quantity - For shape, cracks, blisters, absence of vitrification, hammer test.

(b) Any quantity - Laboratory tests in amounts and character as per ASTM C700-74

CONCRETE SEWER PIPE: Non-reinforced and reinforced concrete sewer pipe.

(a) Any quantity - Visual inspection for shape, uniformity, density, hammer test. Each pipe to be inspected and stamped by a regular employee of the approved testing laboratory.

(b) Any quantity - Laboratory tests in amounts and character as per ASTM C14-74 and C76-74, also permeability test for all pipe of all Designations. Refer to Engineer for completeness of tests. Retain selected samples of pipe on project for guidance of inspectors.

CAST IRON PIPE, DUCTILE IRON PIPE, SPECIAL CASTING:

(a) Any quantity - Certified tests furnished by foundry, field tests for dimensions, coating, and holes.

CONCRETE REINFORCEMENT STEEL:

(a) Up to 50 Thousand Lbs. - Field inspection for rust, shape, and dimensions.

(b) 60 Thousand Lbs. and Up - Independent Laboratory Inspection as follows:

(1) Billet Steel - ASTM A615-75.

(2) Rail Steel - ASTM A616-75.

(3) Cold-Drawn Steel Wire - ASTM A82-72.

(4) Wire Fabric - ASTM A185-73.

2.04 Payment: No separate payment will be made for the work of this Section. The costs of the work, and all cost incidental thereto, shall be included in the price bid for items to which the work pertains.

SECTION NO. 3

REINFORCING STEEL, STRUCTURAL STEEL, AND MISCELLANEOUS METAL

3.01 Reinforcing Steel: Bar reinforcement shall conform to the requirements of ASTM A615-75, Grade 40, or ASTM A616-75, Grade 50. Billet steel bars shall be made by the open hearth process. The use of cold twisted bars will not be permitted. The reinforcement shall be bent cold to the shapes indicated on the plans. This shall be done in the shop, before shipment, and not in the field, unless otherwise noted on the plans or directed by the Engineer. Unless otherwise called for on the plans, hooks shall be not less than the standard hook as provided for in American Concrete Institute "Building Code Requirements for Reinforced Concrete". Unless otherwise called for, provisions of the American Concrete Institute's "Building Code Requirements for Reinforced Concrete" for bar spacing, covering, minimum clearance, bond and anchorage shall be strictly followed. The reinforcing in all concrete walls, slabs, beams, and foundations shall be spaced by means of approved chairs or precast mortar or concrete blocks. All reinforcing steel shall be wired together at the intersection except that laps and splices shall be separated to develop proper bond for each bar. No concrete shall be deposited until the Engineer shall have inspected the placing of the reinforcing metal. The minimum clear distance between spliced bars shall be not less than the bar diameter nor less than one inch nor less than one and one-third times the maximum size of the coarse aggregate. Placing plans and bending diagrams furnished by the fabricator shall show sufficient plan, elevation and sectional views which, in the opinion of the Engineer, will permit accurate checking and placing of all bars.

3.02 Steel and Iron: The Contractor shall furnish and install all steel and iron, including structural steel, ingot iron, and wrought iron, fabricated and erected in place, necessary for the complete construction of the work as shown on the plans and as specified.

(a) Structural Steel shall conform in every respect to the requirements of ASTM A36-75.

(b) Bolts and Nuts shall be of the best quality mild steel, or wrought iron, except where bronze nuts are shown on the Drawings. They shall have hexagon nuts, but may have square heads. Heads and nuts shall have the undersurfaces true and at right angles to the axis of the bolts. Bolts shall have sound, well fitting, truncated "V" threads, American National coarse thread standard. When bolts are used in place of rivets, they shall have a driving fit. Bolts and nuts in general shall be of United States Standard dimensions. All anchor bolts embedded in concrete shall be of cadmium-plate mild steel or wrought iron.

(c) Welding shall be performed in accordance with Code 1, Part A, of the "Code for Fusion Welding and Gas Cutting in Building Construction", as revised to date by the Committee on Building Codes of the American Welding Society.

(d) Workmanship shall be first class in every respect and shall conform to the latest and best practice as set forth in the latest Specification of the American Institute of Steel Construction. All material shall be thoroughly straightened in the shop by methods that will not injure it

before templates are placed on same for laying off and before any work is done upon it. All material shall be kept clean and protected from the weather.

(e) Drawings: Where details are shown on the drawings, the structural steel or wrought iron work shall conform accurately to them. Where the drawings are diagrammatic, the Contractor shall design the connections in accordance with the best shop practice and so as to develop the full strength of the members. The Contractor shall furnish for approval complete shop drawings, showing all framed work and all connections to concrete or other masonry. He shall also furnish all necessary erection drawings.

(f) Shop Painting: Except as otherwise specified, exposed surfaces of steel and iron (except galvanized surfaces) shall be thoroughly cleaned and painted after fabrication before rusting begins. All exposed steel and iron shall be shop coated with Standard Thick as manufactured by Koppers Company, Inc. and after installation shall be touched up and given a second coat of Standard Thick.

3.03 Iron Castings: The Contractor shall furnish and install all miscellaneous iron castings, including manhole frames, covers, steps, bolt inserts, brackets, supports and such other iron castings as are shown on the plans.

(a) Castings, unless otherwise specified, shall be of gray-iron, conforming to Federal Specifications QQ-T-652.

(b) Malleable Castings shall conform to Federal Specifications QQ-I-666.

(c) All Castings shall be tough, close-grained, and smooth, and free from blow holes, blisters, shrinkage stains, cracks, cold shots, and like defects. No plugging of defective castings will be permitted.

(d) Workmanship: All castings shall be made accurately to dimensions shown on the plans or ordered and shall be planed or ground where necessary, whether marked or not, to secure perfectly flat bearing surfaces. Allowance shall be made in the patterns so that the specified thickness of metal will not be reduced.

(e) Weights: No castings will be accpeted, the weight of which is less than the theoretical weight, based on required dimensions, by more than five per cent (5%).

(f) Cleaning and Painting: All castings shall be thoroughly cleaned and painted before rusting begins. All castings, except those to be embedded in concrete, shall be cleaned and given a priming coat of paint in the shop. Castings which will be exposed in buildings shall receive a shop coat of zinc chromate and iron oxide. Castings which are to be installed outdoors, such as manhole frames, covers, and steps, shall be given two (2) coats of Koppers Standard Thick in the shop.

3.04 Payment: No separate payment will be made for the work of this Section. The cost of the work, and all costs incidental thereto, shall be included in the price bid for items to which the work pertains.

SECTION NO. 4

CONCRETE WORK

4.01 Classification of Concrete: Concrete shall be classed as "A", "B", and "C", and shall be composed of cement, fly ash (if required), admixtures (if required), fine aggregate, coarse aggregate, and water proportioned and mixed to produce a plastic workable mix in accordance with the requirements of this Section, and shall be suitable for the specific conditions of placement. Concrete shall have normal setting characteristics (unless the use of high early strength cement is approved by the Engineer); shall be used in the locations identified below; and shall have 28-day compressive strengths not less than those listed below, except that concrete containing high early strength cement shall have a 7-day compressive strength of not less than those listed below.

(a) Class "A" concrete shall have a compressive strength of not less than 3,000 psi, and shall be used for reinforced concrete work, and for unreinforced footings and slabs 8-inches and less in thickness.

(b) Class "B" concrete shall have a compressive strength of not less than 2,200 psi, and shall be used for gravity type walls, and for unreinforced footings and slabs over 8-inches thick.

(c) Class "C" concrete shall have a compressive strength of not less than 1,500 psi, and shall be used for concrete subfoundations, pipe envelopes, and concrete backfill where required.

4.02 Materials:

(a) Admixture: Admixture may be added to Class "A" and Class "B" concrete if its addition is approved by the Engineer. If addition is approved, admixture shall be Master Builders "Pozzolith", or approved equivalent, and shall be added in accordance with the manufacturer's printed instructions. A standard dispenser shall be used to introduce the admixture into the mix, and the services of the manufacturer's representative to install and establish the operation of the dispenser shall be furnished by the Contractor.

(b) Fine Aggregate: Fine aggregate shall be natural sand consisting of hard, strong, durable, and uncoated particles having a fineness modulus of not less than 2.30 nor more than 3.00; variation in fineness modulus shall be limited to +0.20 from the average of all tests. Aggregate shall satisfy the requirements of ASTM C33-74A, and have gradation as follows:

Sieve Size	Per Cent Passing, By Weight
No. 4 Sieve	95 to 100
No. 16 Sieve	50 to 85
No. 50 Sieve	10 to 30
No. 100 Sieve	2 to 10

(c) Coarse Aggregate: Coarse aggregate shall be washed gravel or crushed stone consisting of hard, strong, durable, and uncoated particles;

and contain neither vegetable matter nor soft, friable, thin, and elongated particles in quantities considered deleterious by the Engineer. Coarse aggregate shall satisfy the requirements of ASTM C33-74A; and have gradation as follows:

Sieve Size	Per Cent Passing, By Weight
1-1/2" Sieve	100
1" Sieve	95 to 100
1/2" Sieve	55 to 30
No. 4 Sieve	5 to 0
No. 16 Sieve	1 to 0

(d) Cement: Cement shall satisfy the requirements of ASTM C150-74; cement for normal Class "A", "B" and "C" concrete shall be Type I or II; cement for high early strength Class "A", "B" and "C" concrete shall be Type III. Type III cement shall be used only if its use is approved by the Engineer.

(e) Fly Ash: Fly ash, if used, shall satisfy the requirements of ASTM C618-73, except that the loss-on-ignition shall be not more than 6%.

(f) Forms: Forms shall be of plywood and shall be of grade and type suitable to obtain the finish required. Metal forms, and other types of manufactured forms, shall not be used unless their use has been authorized by the Engineer. Form oil shall be non-staining mineral oil. Form ties shall be standard snap-tie type, and designed so that when removed no metal will be left closer than 1-inch from the finished wall face. The cavities left in faces of concrete work by removal of form ties shall be pointed-up with non-shrink mortar. Form ties shall have a working strength of not less than 3,000 lbs. when fully assembled, and shall be as approved by the Engineer.

(g) Water: Water shall be fresh, clean, and free from injurious amounts of oil, acid, alkali, and organic materials.

4.03 Proportioning and Mixing of material shall be accomplished in a manner which will produce a workable mixture having a slump within the required limits, and having minimum water content.

(a) The exact proportion of materials to be used in concrete shall be as determined by the Laboratory Design Mix, and as directed by the Engineer. The equipment necessary to positively determine and control actual amounts of materials entering into the concrete shall be furnished by the Contractor. The proportions of materials used in the mix shall be changed whenever, in the opinion of the Engineer, a change is necessary to obtain the required strength, and the desired density for uniformity and workability. In structures intended to be watertight, good workability will be considered to be of primary importance.

(b) All materials shall be measured by weight, except for water, which may be measured by volume. One (1) bag of Portland cement shall be considered to weight 94 lbs., and one (1) gallon of water to weight 8.33 lbs.

(c) Cement and Fly Ash Content:

(1) Each cubic yard of concrete containing Type I or Type III cement shall contain not less than the following quantities of cement and fly ash:

Class "A" - 470 lbs. (5 bags) of cement and 100 lbs. of fly ash
Class "B" - 376 lbs. (4 bags) of cement and 100 lbs. of fly ash
Class "C" - 376 lbs. (4 bags) of cement; no fly ash required

(2) Each cubic yard of concrete containing Type II cement shall contain not less than the following quantities of cement:

Class "A" - 564 lbs. (6 bags)
Class "B" - 470 lbs. (5 bags)
Class "C" - 376 lbs. (4 bags)

(d) In calculating the total water content of mixes, the amount of water borne on the surface of the aggregate particles shall be included. The amount of water to be used in the mix shall be in all cases, the least amount necessary to produce a plastic mix having the required strength and the desired density, uniformity, workability, and characteristics within the required slump limits. Slump of placed concrete shall be not less than 4" nor more than 7".

(e) The total volume of aggregates to be used in each cubic yard of concrete, and the proportion of fine aggregate to coarse aggregate, shall be that necessary to produce a dense mixture having the required workability, as determined by the Laboratory Design Mix, and as directed by the Engineer.

(f) Batching at a central mixing plant shall be such that the concrete shall be mixed and transported to the job site in transit mixer in accordance with ASTM C94-71. Mixing time shall not exceed 1-1/2 hours between the introduction of water and time of discharge. Certified invoices of the mix delivered shall be furnished to the Engineer.

4.04 Concrete in Cold Weather: No concrete shall be placed when the atmospheric temperature is below 35 degrees Fahrenheit.

After concrete has been placed, if the temperature drops below 35 degrees Fahrenheit, the Contractor shall provide sufficient canvas and frame work or other types of housing to enclose and protect the structure in such a way that the air surrounding the fresh concrete can be kept at a temperature of not less than 45 degrees Fahrenheit for a period of 5 days after the concrete is placed.

The Contractor shall assume all risk connected with the placing of concrete under above conditions and permission given by the Engineer to place concrete under above conditions will in no way relieve the Contractor of responsibility of proper results. Should concrete placed under such conditions prove unsatisfactory, it shall be rejected.

4.05 Concrete Work: The construction of forms, the depositing and placing of concrete, and the finishing of concrete shall be conducted so as to form a compact, dense, and impervious stone having a uniform texture throughout

and smooth faces on all surfaces exposed to view. If, in the opinion of the Engineer, construction operations are not suitable to obtain those finished results, he may require the Contractor to use methods which will produce structures true to shape, line and dimensions, and which will conform to the above requirements and to the following methods of obtaining the finished result.

(a) Form Work shall be built, braced, and secured to accurately maintain the finished shape, line, and dimensions at all times. Chamfer all exposed edges 3/4", unless shown otherwise. Inspection and approval by the Engineer of all form work and reinforcing steel in-place must be obtained before placing concrete. That approval shall, in no way, relieve the Contractor of his obligation to produce the finished work as required by the Drawings and Specifications.

(b) Placing of concrete shall be continuous, and in horizontal layers of not over 12-inches. Chutes, troughs, or pipes shall be used so that the ingredients are not separated. Construction joints shall be used only where shown, unless otherwise approved in writing by the Engineer. All work shall be done in daylight, unless an adequate lighting system is approved by the Engineer.

(c) Mechanical vibrators, of an approved type, shall be used to produce proper contact of concrete with reinforcing steel and forms. Continuous spading of concrete in thin sections shall be used where required.

(d) Bonding of new concrete with concrete which has set shall be ensured by thoroughly roughening and cleaning the surface, brushing in a coating of neat cement grout, then slushing-in at least one (1) inch of grout composed of one part Portland cement to two parts sand.

(e) Form Removal: Forms shall not be removed until the member supported thereby has acquired sufficient strength to safely support its own weight, and the load imposed upon it. Under normal conditions, forms may be stripped in accordance with the following schedule: the use of the following schedule shall not relieve the Contractor from his responsibility for the safety of the structure:

Slabs -- 14 days
Columns and Pedestals ------------------------- 7 days
Walls and Vertical Faces not supporting other work ----- 2 days

Deviations from the schedule must be approved by the Engineer. All wood forms shall be completely removed from the work and all form tie rod holes pointed.

(f) Curing and Protecting: Freshly placed concrete shall be protected from rain and flowing water. Concrete shall be kept wet with clean water for a period of seven (7) days. Each day forms are left in place will suffice for wetting. In lieu of the foregoing curing method, the Contractor may use an approved membrane curing compound to seal the water in the concrete, except for surfaces which are to receive future concrete and mortar. The compound shall have a record of successful use for two (2) years or more.

(g) Concrete floor surfaces, not having a separate finish, shall be finished by tamping the concrete with special tools to force the coarse aggregate away from the surface, then wood floated or troweled to a smooth surface.

(h) Surface Finish: As soon as the concrete has set sufficiently to permit, the forms shall be carefully removed. Depressions resulting from the removal of the metal spacers, and all other holes and rough spaces, shall be carefully pointed with mortar of sand and cement in the proportion which has been used in the class of concrete. The surface film of all pointed surfaces shall be carefully removed before setting occurs.

(i) Rubbing Concrete: After the surface has set sufficiently to permit, all concrete surfaces exposed to view shall be thoroughly wetted and rubbed with a carborundum stone of medium fineness, or other equally good abrasive, to bring the surface to a smooth texture and remove all form marks. The paste formed by the rubbing, as above described, may be finished by floating with a canvas or carpet-faced float, or may be rubbed down with dry burlap.

(j) Cleaning: Upon completion of all work, all forms, equipment, protective coverings, and rubbish resulting therefrom shall be removed from the premises. Finished concrete surfaces shall be left in a clean condition satisfactory to the Engineer.

4.06 Payment: No separate payment will be made for the work of this Section, except as may be otherwise stipulated in the PROPOSAL. The cost of the work, and all costs incidental thereto, shall be included in the price bid for items to which the work pertains.

SECTION NO. 5

SEWERS AND APPURTENANCES

5.01 Work to be Done: The Contractor shall furnish the material and construct the sewers shown, and perform clearing, grubbing, excavating, sheeting, and backfilling and install foundations, manholes, and other appurtenances shown and specified. The work shall include ditching, diking, pumping, bailing, draining, flushing, testing; protecting and maintaining buildings, fences, water and gas pipe, drain culverts, power and telephone lines and cables, and other structures; furnishing and maintaining suitable bridges and footways across intercepted streets and alleys; replacing of pavements and sidewalks; cleaning-up of rubbish and surplus materials; and furnishing of materials, tools, implements, and labor required to build, and put in complete working order, the specified sewers and associated structures.

5.02 Location and Grade: The line and grade of the sewer, and the position of manholes and other structures, will be given by the Engineer. The grade line shown and specified means the invert of the pipe. The price for trenching shall include the trench for the depth below the grade line necessary to lay the sewer to this grade, but measurements for payment will be made only to the grade line. Necessary lines, levels, and grades will be given by the Owner or Engineer; the Contractor shall provide field men and assistance requested by the Engineer, and shall furnish planks, stakes, spikes, nails, and other fastenings as may be required to establish the lines, levels, and grades.

5.03 Order of Work: The Owner reserves the right to accept and use portions of the work when it is considered to be in the public's interest to do so; the Engineer shall have the authority to establish the order in which the lines shall be worked.

5.04 Inspection: All work done and materials furnished shall be subject to inspection by the Engineer and the Inspector; improper work shall be reconstructed. Materials which do not conform to the requirements of this Section shall be removed from the work upon notice being received from the Engineer of the rejection of those materials.

5.05 Sewer Pipe: Pipe for sanitary sewers shall be as follows:

(a) Quality and Inspection: Latitudes in workmanship and finish allowed by ASTM notwithstanding, all pipe shall have smooth exterior and interior surfaces; be first quality, be free from cracks, blisters, and other imperfections, and be true to theoretical shapes and forms throughout each length. Pipe shall be subject to inspection by the Engineer at the pipe plant, trench, and other points of delivery for the purpose of culling and rejecting pipe, independently of laboratory tests, which does not conform to the requirements of this Section. Pipe which does not conform will be so marked by the Engineer, and shall not be used in the work. On-the-job repairing of rejected pipe will not be permitted.

(b) Experience of Manufacturer: The pipe manufacturer shall submit evidence, if requested by the Engineer, of having consistently produced pipe and joints of the quality specified herein, and which have exhibited satisfactory performance results in service over a period of not fewer than two years. The pipe manufacturer and the pipe manufacturing process shall be subject to approval by the Engineer.

(c) Testing and Stamping: All pipe, joint materials, and made-up joints shall be tested by an independent laboratory approved by the Engineer. Pipe shall be stamped with the laboratory's stamp; the letters "W" and "S" shall be included as an integral part of the stamp. Each stamped joint of pipe shall indicate the laboratory's certification that it was accepted in accord with applicable ASTM Specifications, and that it was inspected and accepted in accord with the requirements of this Section for special tests and for pipe quality.

(d) Clay Pipe:

(1) General Requirements: Clay sewer pipe shall be glazed or unglazed, and shall conform to the following A.S.T.M. Specifications:

a. Standard Strength Pipe: C700-74 except as otherwise provided herein.

b. Extra Strength Pipe: C700-74, except as otherwise provided herein.

(2) Size 15-inch and Smaller: All pipe shall be extra strength. Pipe for sewers shall be furnished in lengths of at least 5 feet.

(3) Size 18-inch and Larger: All pipe shall be in lengths of at least 5 feet and shall be standard strength or extra strength as required by the plans and specifications.

(4) Minimum Crushing Strength: All pipe when tested for crushing strength by the 3-edge bearing method in accordance with A.S.T.M. Specification C301-72 shall have a minimum strength of not less than the following values:

	Minimum Strength - Lbs. per Lin. Ft.	
Pipe Size	Standard Strength	Extra Strength
6"	Not Permitted	2,000
8"	Not Permitted	2,200
10"	Not Permitted	2,400
12"	Not Permitted	2,600
15"	Not Permitted	2,900
18"	2,200	3,300
21"	2,400	3,850
24"	2,600	4,400
27"	2,800	4,700
30"	3,300	5,000
36"	4,000	6,000

(5) Absorption: Absorption shall not exceed 6 per cent when determined in accordance with the provisions of A.S.T.M. Specification C301-72.

(6) Joints: All pipe shall be furnished with factory-fabricated jointing connections conforming to all provisions of A.S.T.M. Specification C425-74 or C594-74.

(e) Concrete Pipe:

(1) General Requirements: Concrete sewer pipe shall be bell and spigot and shall conform to the following ASTM Specifications:

a. Non-Reinforced Pipe: C14-74, Table II for Extra Strength Pipe except as otherwise provided herein.

b. Reinforced Pipe - Standard Strength: C76-70, Class III, except as otherwise provided herein.

c. Reinforced Pipe - Extra Strength: C76-74, Class IV, except as otherwise provided herein.

(2) Size 12-inch and Smaller: All pipe shall be non-reinforced, extra strength. Pipe shall be furnished in lengths of at least 4 feet.

(3) Size 15-inch and Larger: All pipe shall be reinforced, extra strength. Pipe shall be furnished in lengths of at least 8 feet.

(4) Cement and Coarse Aggregate: Cement shall be Type 2. Coarse aggregate shall be crushed limestone.

(5) Minimum Crushing Strength: All pipe when tested by the 3-edge bearing method in accordance with ASTM Specification C497-74 shall have a minimum strength (defined as the load to produce a 0.01 inch crack for reinforced pipe) of not less than the following values.

	Minimum Strength - Lbs. per Lin. Ft.	
Pipe Size	Standard Strength	Extra Strength
8"	Not Permitted	2,000
10"	Not Permitted	2,000
12"	Not Permitted	2,000
15"	Not Permitted	2,500
18"	2,025	3,000
21"	2,360	3,500
24"	2,700	4,000
30"	3,375	5,000
36"	4,050	6,000
42"	4,725	7,000

(6) Absorption: Absorption shall not exceed 6 per cent when determined in accordance with the provisions of ASTM Specification C497-74.

(7) Joints: All pipe shall have O-ring rubber gasket type joints conforming with the applicable provisions of ASTM Specification C443-74.

A rectangular groove shall be provided in the spigot end of the pipe to receive the circular rubber gasket and it shall be so formed that when the joint is complete the gasket will be deferred to the shape of the groove and confined on all four sides. Bell and spigot surfaces shall be accurately formed and smooth to provide a close

sliding fit with a nominal clearance not to exceed 1/16-inch between the outside surface of the spigot and the inside surface of the bell.

(8) Repaired Pipe: Repaired and patched pipe will not be acceptable unless each individual pipe so repaired or patched shall have first been inspected and approved by the Engineer, for repair and patching at the pipe plant. Repairs to, and patching of, gasket grooves and shoulders will not be permitted if damage is of a nature which, in the opinion of the Engineer, would impair the watertightness of the completed joint.

(9) Shear Loading Test: Made-up gasketed joints shall be tested for shear loading at a total load of 100 pounds per inch of diameter, including the weight of the pipe, water, and test apparatus. The load shall be uniformly applied to the spigot and over an arc of not less than 120 degrees for a longitudinal distance of 12 inches immediately adjacent to the bell, with the pipe supported on blocks behind the bells during the test procedure. There shall be no visible leakage when tested with an internal water pressure of 5 psi for a period of one hour. Shear loading tests shall be made in the presence of the Engineer prior to delivery of any pipe; at least one shear loading test shall be conducted for each size of pipe to be delivered to the jobsite.

(f) Steel Pipe for river crossing shall be as follows:

(1) Pipe shall conform to AWWA Specification C-202-60T for electrically welded or seamless steel pipe. The pipe shall be 36-inch nominal diameter, with a minimum 0.375 inch wall, forty (40'-0") long with spigot ends built-up to 38.30 inches outside diameter. All welding shall be done in the shop by certified welders. No field welding shall be permitted. Joints between sections of steel pipe shall be made with Style 38 Dresser couplings, or bell and spigot "O-Ring" joints.

(2) Lining: Interior of pipe shall be sandblasted to the equivalent of "No. 5 Blast Cleaning to White Metal" of the Steel Structures Painting Council. The Contractor shall furnish the Engineer a plate, purchased from the Steel Structures Painting Council, representing the No. 5 Blast Cleaning to be used as a field guide. Under no circumstances shall sandblasted surfaces be permitted to rust, or condensation to form, prior to coating. Preferably not over 8 hours shall elapse between cleaning and coating.

Coal tar epoxy shall be applied in two or more coats in strict accordance with the manufacturer's painting instructions, unless specified otherwise therein, to obtain a total thickness of 16 mils dry film. No coating shall be applied when the temperature is below 50° F., nor when the relative humidity is more than 75%, nor when condensation is present on bare or coated surfaces. Mechanical mixers shall be used, and there shall be no mixing in quantities smaller than amounts furnished in original containers. When more than 72 hours elapses between application, the preceding application shall be brush blasted to a rough finish to receive the succeeding application, unless the manufacturer furnishes an additive for use in succeeding applications and guarantees that by its use brush blasting of the preceding application is necessary.

(3) Coating: Exterior surfaces of all steel pipe shall be cleaned, primed and coated with coal tar enamel, "Jet-Set" primer and Bitumastic 70B enamel or approved equal, and wrapped with bonded asbestos felt in accordance with AWWA Specification C203-57. After completion of factory coating and wrapping operations, the pipe shall be wrapped with Kraft paper. The manufacturer of the steel pipe and fittings will be required to conduct an electrical inspection of exterior coatings in accordance with Section 3-313 of AWWA Specifications for coal tar protective coatings prior to shipment.

(4) Certification: The manufacturer of steel pipe and fittings shall furnish both the Engineer and the Owner with certified reports stating that inspection and specified tests have been made and that the results thereof comply with the applicable AWWA Specifications.

(g) Poly Vinyl Chloride (PVC) Sewer Pipe:

(1) General: Poly Vinyl Chloride (PVC) Sewer Pipe shall be bell and spigot and may be Type PSP or Type PSM. The PVC pipe shall meet the requirements of ASTM Specifications D-3034-74 or D-3033-75 and these specifications. The pipe furnished for this work shall be of one type. Bids will be received for furnishing and installing either Type PSP or PSM PVC sewer pipe in sizes 8", 10" and 12" having minimum wall thickness as defined in ASTM D-3033-75 or ASTM D-3034-74 under the classification for SDR-35 pipe. Only plus tolerances on wall thickness will be acceptable. No minus tolerances will be allowed.

(2) Joints: All pipe shall have elastomeric joints with an integral belled gasket coupler. Rubber gaskets shall comply with the physical requirements specified in ASTM C-443-74. Joints shall meet the requirements specified in ASTM D-3212-73T.

(3) Storage and Handling: PVC sewer pipe may be stored either inside or outdoors. If stored outdoors, it shall be left in the pallets until it is ready to be used. The pipe shall be stored in such way that surfaces to be mated are kept clean and protected from physical damage and so that sagging and bending is prevented. Dragging of pipe will not be allowed.

(4) Installation: PVC sewer pipe shall be installed in accordance with ASTM Specification D-2321-74 and these specifications.

a. Trench Width: Maximum trench width to a point one foot (1') above the top of pipe shall be 2'-2" for 8" pipe, 2'-4" for 10" pipe and 2'-6" for 12" pipe. Should trench walls collapse or over excavation occur, special bedding, tamping and initial backfill will be required as conditions warrant.

(5) Bedding and Backfill: Class I, II and III materials as listed in ASTM D-2321 will be used for bedding, haunching, and initial backfill with one exception. The Engineer will not allow Class III material where excessive moisture is present in the soil. Class IV and Class V materials are not acceptable for bedding, haunching or initial backfill. Minimum depth of bedding shall be four inches (4"). Compaction to the Spring Line or Center of the pipe shall be

the same material used in the bedding. Compaction to 6" above top of pipe shall be as specified in ASTM D-2321 except puddling will not be allowed as a method of compaction. Remaining backfill is to be as specified in Section 5.28 of these specifications. Provide at least 30" of cover before wheel loading pipe and at least 48" of cover before using heavy tamping equipment such as a hydrohammer.

(6) Deflection: The maximum deflection in the installed pipeline shall not exceed 10% of the pipes original internal diameter. Deflection testing will be required using either a deflectomater or a "GO-NO GO" mandrel. The Engineer shall randomly select portions of the project to be deflection tested. Such portions shall consist of not less than 10% of the total reaches (reach being length of pipe between two manholes) in the project (excluding house leads).

Where deflection is found to be in excess of 10% of the original pipe diameter, the Contractor shall excavate to the point of excess deflection and carefully compact around the point where excess deflection was found. The line shall then be retested for deflection. However, should after the initial testing the deflected pipe fail to return to the original size (inside diameter) the line shall be replaced.

In the event that deflection occurs beyond the ten per cent limit in any section of 10% or more of the reaches tested, the entire system shall be tested.

(7) Payment: The Contractor will include in the unit price bid for installation at the various depths the cost for Class I, II and III materials, if any and, for furnishing equipment and labor for deflection testing.

5.06 Cast and Ductile Iron Pipe and Fittings: Cast iron pipe shall be used in sizes 4-inch through 12-inch. Ductile iron pipe shall be used for sizes 16-inch and larger. Cast iron pipe shall be ANSI Class 22. Ductile iron pipe shall be Class 2, or heavier thickness classes, if so shown. Cast iron pipe shall conform to AWWA C106-62, or C108-62. Ductile iron pipe shall conform to AWWA C151-65. Joints shall be push-on or mechanical joint type for pipe and standard mechanical joints for fittings. Pipe and fittings shall be fully lined in accord with AWWA C104-64. Fittings shall be short body standard designed for 200 feet of working head. All pipe and fittings shall be coated inside and out with an approved coal-tar coating.

(a) Laying Cast and Ductile Iron Pipe: No pipe shall be laid which is known to be defective. The pipe shall be thoroughly cleaned before being laid and shall be kept clean until accepted in the completed work.

(b) Mechanical Joint Pipe on Piers: Mechanical joint pipe constructed on piers in gravity sewer lines shall be laid with 1/4-inch clearance in each joint to provide for expansion; and with joint bolts tightened only in sufficient degree to prevent leakage at full pipe flow.

(c) Weight: No pipe will be accepted, the weight of which is less than the standard weight by more than five (5%) per cent for pipe 16 inches or less in diameter and four (4%) per cent for pipe more than 16 inches in diameter. The American Water Works Association specifications regarding minimum and maximum weights for specials shall apply.

5.07 Concrete and Mortar: Concrete of the respective classes for structures, manhole bottoms, and bedding shall conform to applicable provisions of the "Concrete Work" section. Cement mortar for brick work and inverts of manholes shall be made of one part cement and two parts clean sharp sand.

5.08 Reinforcing Steel and Miscellaneous Metal: Materials, fabrication, and installation of reinforcing steel, manhole frames and covers, railing and other miscellaneous metal shall conform to all provisions of the "Reinforced Steel, Structural Steel and Miscellaneous Metal" section, and shall be as shown.

5.09 Iron Castings: Materials, fabrication, and installation of iron castings shall conform to all provisions of the "Reinforcing Steel, Structural Steel and Miscellaneous Metal" section, and shall be as shown.

5.10 Manhole Brick: Brick for manhole construction shall be whole, hard burned, common brick conforming to ASTM C32-69, Grade MA.

5.11 Clearing: The Contractor shall perform all clearing necessary for installation of the complete work. Clearing shall consist of removing trees, stumps, roots, brush, and debris in the way of the work. All combustible material shall be completely burned or otherwise disposed of in a satisfactory manner. Burning shall be in accord with local regulations. The Contractor's attention is directed to Paragraph 41 of the General Conditions concerning the protection of trees.

5.12 Removing and Resetting Fences: At all locations where existing fences must be removed to permit construction of the sewer, the Contractor shall remove the fences and, as the sewer construction progresses, reset the fences in their original location and to their original condition. During construction, the Contractor shall provide temporary fencing, or employ other safeguards, which will prevent livestock from wandering to other property.

5.13 Street Crossings: At street crossings, and at other points as may be directed by the Engineer, the trenches shall be bridged in an open and secure manner to prevent serious interruption of vehicular and pedestrian travel, and to afford necessary access to public and private premises. The material used, and the method of constructing bridges and the approaches thereto, must be approved by the Engineer. The cost of the work must be included in the price bid per lineal foot for the pipe.

5.14 Protection of Other Utilities and Structures: Damage to existing utility lines, services, poles, and structures shall be repaired or replaced by the Contractor at his own expense. The approximate positions of certain known underground lines are shown for information. Existing service and other unknown lines are not shown. The Contractor shall locate existing lines, and other possible existing unknown utility lines, with an electronic pipe locator; he shall excavate and expose all existing underground lines in advance of trenching operations. Removing and relaying of those lines and appurtenances which constitute an obstruction to the completed line and grade of the new work, in the opinion of the Engineer, will be made at the expense of the Owner, unless otherwise shown on plans to be altered by the Contractor.

5.15 Protecting Trees, Shrubbery, Lawns, and Pastures: Trees and shrubbery along trench lines crossing developed private property shall not be disturbed unless absolutely necessary, subject to approval by the Engineer. Trees and shrubbery to be removed shall be properly heeled-in and replanted. Heeling-in

and replanting shall be done under the direction of an experienced nurseryman.

(a) Lawns: If directed by the Engineer, where sewer trenches cross private property through established lawns, sod shall be cut, removed, stacked and maintained in suitable condition until replacement is approved by the Engineer. Topsoil underlying lawn areas shall likewise be removed and kept separate from general excavated materials. Removal and replacement of sod shall be directed by an experienced nurseryman. The removal and replacing of sod and all other related work will be made in accordance with the unit price bid for the item.

(b) Pastures: Where sewer trenches cross private property through established pastures, care shall be taken to prevent damage. After completion of pipe laying operations, the Contractor shall, if directed, regrass pastures. Grassing shall be by seeding with hulled Bermuda seed or a mixture of 15 pounds of Fescue, 10 pounds of Orchard Grass, and 2 pounds of White Clover. Seeding of Bermuda shall be done between May 15 and August 15 and seeding of Fescue mixture between August 15 and December 1. Before planting, a fertilizer of 5:10:15 composition, or approved equal, shall be evenly applied at the rate of 20 pounds per 1,000 square feet and disced or harrowed into the dampened soil. Hulled Bermuda seed shall be applied at the rate of 2 pounds per 1,000 square feet and Fescue mixture at the rate of 1.5 pounds per 1,000 square feet, raked in, and properly compacted. The Contractor shall do all work necessary to achieve a satisfactory stand, including watering, fertilizing, and mulching. A satisfactory stand of grass is defined as a full cover, over the area seeded, of live and growing grass with no bare spots larger than two square feet. Grassing will be paid for on a linear foot basis on pipelines and shall include, in addition to the pipe trench width, all areas adjacent to the pipe trench where the existing grass has been distributed or destroyed by the Contractor's operation. Areas to be grassed shall be designated by the Engineer.

5.16 Removing Pavement: The Contractor shall remove pavement as necessary for installing the new pipe lines and appurtenances and for making connections to existing pipe lines.

(a) Marking: Before removing pavement, the pavement shall be marked for cuts nearly paralleling pipe lines and existing street lines. Asphalt pavement shall be broken along the marked cuts with a jack hammer or other suitable tool. Concrete pavement, and asphalt pavement on concrete base, shall be scored to a depth of approximately two (2) inches below the surface of the concrete along the marked cuts. Scoring shall be done by use of a rotary saw, after which the pavement may be broken below the scoring with a jack hammer or other suitable tool.

(b) Machine Pulling: No pavement shall be machine pulled until completely broken and separated along the marked cuts.

(c) Damage to Adjacent Pavement: The pavement adjacent to pipe line trenches shall be neither disturbed nor damaged. If the adjacent pavement is disturbed or damaged, irrespective of cause, the Contractor shall remove the damaged pavement and shall replace with new pavement at his own expense.

(d) Payment: The removal of pavement will be paid for on the basis of

measured quantity of pavement removed at the unit prices bid in the Proposal.

5.17 Excavation: Perform all excavation of every description and of whatever substance encountered to the depth shown or specified, or both, for all sewers, manholes, piers, conduits, and other appurtenances. Excavation shall be accomplished by open cut, unless otherwise directed. No tunneling shall be done, except that approved by the Engineer; if approved, the tunnel shall be of the height, width, and cross section approved by the Engineer.

(a) The top portion of the sewer pipe trenches may have sloping or vertical sides to widths which will not cause damage to adjoining structures, roadways, pavements, utilities, and private property. For untimbered trenches and trenches held by stay bracing only, the width of the lower portion of the trench to a height of two feet above the top of the pipe shall not exceed the trench widths specified in the "Maximum Trench Widths and Depths" paragraph. Where skeleton and solid sheeting is used, trench width may be increased to dimensions approved by the Engineer, but shall be not greater than that necessary to clear the walers when lowering pipes into the trench. Where, in the opinion of the Engineer, trench excavation may damage adjoining poles, roadways, utilities, and private property, the Engineer may order the Contractor to install suitable sheeting for their protection. Such orders shall in no way relieve the Contractor from his responsibility of protection of the facilities, nor shall the lack of those orders relieve the Contractor from that responsibility. No extra payment for sheeting will be made, except for the sheeting which the Engineer orders to remain in place. If trenches are excavated to widths in excess of the above limitations, or collapse because of insufficient bracing and sheeting, the Contractor will be required to use special methods of constructing pipe foundations and backfilling as specified herein at his own expense.

(b) Trench excavation shall not advance more than six hundred (600) feet ahead of pipe laying, unless approved by the Engineer.

(c) The bottom of all trenches, except as otherwise specified, shall be rounded to conform to the bottom of the pipe and to afford full bearing of the pipe barrel. The depth and width required for that shaping shall be directed by the Engineer.

(d) Excavation in excess of depth required for proper shaping shall be corrected by one of the special methods specified herein, as ordered by the Engineer. Bell holes shall be excavated in a manner which will relieve pipe bells of all load, but holes shall be small enough to insure that support is provided throughout the length of the pipe barrel.

(e) Excavation in excess of the depths required for manholes and other structures shall be corrected by placing a sub-foundation of Class "C" concrete, at no additional expense to the Owner.

5.18 Excavation in Solid Rock: Solid rock is defined as those materials in the original bed and in well-defined ledges which, in the opinion of the Engineer, cannot be removed with pick, shovel, ditching machine, back-hoe, and other similar devices, and which requires drilling, blasting, jack hammering, and bullpointing. Concrete and masonry structures to be removed which require drilling and blasting for removal, shall be considered rock unless otherwise

provided for herein. Boulders, and detached pieces of rock, having volumes of more than 8 cubic feet, shall be considered as rock.

(a) Ledge rock, boulders, and large stones shall be removed to provide a clearance of not less than 6 inches in every direction from all parts of pipe, fittings, and other appurtenances.

(b) Where rock is encountered at grade in trenches, the trench shall be excavated not less than 4 inches below the bottom of the pipe bell, refilled with gravel or crushed stone thoroughly tamped in-place, and shaped to the pipe. No payment in addition to prices paid for sewers will be made for gravel or stone bedding above specified.

(c) Excavated rock shall not be mixed with material selected for tamped backfilling under and around the pipe up to a level at least two feet above the pipe.

(d) Where sewers are constructed across streets, pastures, and cultivated fields, excavated rock shall not be mixed with backfill material used to complete the final 12-inch layer of backfill at the original ground surface. Surplus rock shall be removed and wasted at points approved by the Owner.

(e) Excavation in solid rock will be paid for at the unit price per cubic yard as listed in the Proposal, the price being in addition to that paid per foot of sewer for the various depths encountered. The unit price for rock excavation shall include the cost of rock excavation, the cost of hauling sufficient and suitable earth bedding, backfilling pipe in excavated trenches as specified, and all costs incidental thereto. A bid price of less than $8.00 per cubic yard or more than $20.00 per cubic yard shall be considered unbalanced, and the entire Bid shall be subject to rejection. The Engineer must be given ample notice to measure all rock after it has been stripped and before it is blasted. No payment will be made for rock blasted before the measurement is made. Rock excavation will be measured for payment for a width equal to the outside diameter of the pipe bell plus 12 inches, the sides of the trench being considered vertical, and to a depth of 4 inches below the bell of the pipe laid on the grade established by the Engineer. Measurement for payment for rock excavation at manholes and other miscellaneous structures will be made to lines which are not more than 6 inches outside neat footing lines.

5.19 Blasting: All blasting shall be done under the supervision of a Blasting Engineer retained and employed by the Owner. It will be his duty to advise the blaster of hole spacing and loading and to make seismic and concussion measurements where deemed necessary. The Contractor shall cooperate with the Blasting Engineer by uncovering and exposing pipe and structures for instrument mounting. He shall also advise the Resident Engineer when each shot is ready so that measurements may be taken if needed.

Blasting operations shall be conducted in strict accordance with all existing ordinances and regulations and shall be done only with the Blasting Engineer's approval and under his supervision.

All exposed structures shall be carefully protected from the effects of the blasts and all blasts shall be covered with blasting mats, dirt, heavy timbers or other suitable material. The blasting shall be done by experienced

workmen. Any damage done shall be promptly repaired by the Contractor at his own expense. All blasting supplies shall be stored in a manner approved by the State Fire Marshal, and a watchman shall be stationed at all times at the place of storage.

All shots shall be delayed so as to minimize ground vibrations with a maximum peak particle velocity, as measured at the nearest structure (pipes, etc.) not to exceed 2.0 inches per second. The overpressure (noise or concussion) shall be minimized and sufficient stemming and matting used to prevent over-pressure in excess of 120 db. Precautions shall be taken to minimize flying rock and sufficient matting used to prevent rocks from striking any person or structure.

Vibration recording instruments shall be used on the initial shots, and all others deemed necessary to determine proper blasting procedures. These instruments shall be of the type which records on direct-reading tape the three (3) components of velocity. The analysis of these recordings are to be signed by a Registered Professional Engineer in Georgia. Blasting is not to be conducted which will produce a Scaled-Distance less than previously recorded for at least three (3) different shots deemed to be safe. The Scaled-Distance is to be determined by the distance from the shot to the nearest structure subject to potential damage from ground vibrations.

Overpressure (concussion) is to be recorded on direct-recording tape, preferably on the same recording as the vibration. The instrument used for measuring concussion shall be the type specifically designed for impact-type overpressure from blasting.

The blaster is to maintain an accurate log of each shot, listing as a minimum the following: date, time, station number, manufacturer and type of explosive, method of firing, total weight of explosive, number of delays, number of holes, hole depth, maximum weight of explosive per delay, amount of stemming, type and amount of matting.

5.20 Dewatering Trenches: Where ground water is encountered, the Contractor shall make whatever effort is necessary to secure a dry trench bottom before laying pipe. In sandy or other suitable type soils, dewatering shall be done by well pointing.

If, in the opinion of the Engineer, the Contractor has failed to obtain an absolutely dry trench bottom by insufficient use of all known methods of trench dewatering, the Engineer may order the Contractor to excavate below grade and place a minimum of 6 inches of graded crushed stone fill material over the trench bottom to form french drains to suitably located sumps and the water removed by bailing or pumping. The graded crushed stone fill material shall be placed at the Contractor's own expense and shall be of such depth that there shall be no water in bell holes at the time of coupling pipe.

All costs of equipment, labor and materials required for dewatering shall be included in the bid price for sewers.

5.21 Trench Stabilization: Wherever the subgrade is, by nature, too soft and mucky, in the opinion of the Engineer, for the proper installation of the sewer, the Engineer may order the Contractor to undercut the ditch and backfill with crushed stone or gravel not larger than 3/4" in size. The stone shall be brought to grade and compacted. Payment for crushed stone backfill, only where

ordered by the Engineer, will be made at the unit price bid, measured before placing, and shall include the removal of unsuitable subgrade materials.

5.22 Bracing and Sheeting: The sides of all trenches and excavation for sewers and structures shall be securely held by stay bracing, or by skeleton or solid sheeting and bracing, as required by the soil conditions encountered, unless otherwise permitted by the Engineer. Bracing and sheeting may be removed in units when the level of the backfilling has reached the elevation necessary to protect the pipe work and adjacent property. Sheeting near the bottom of these trenches more than ten (10') feet deep, for sewers 15-inch size and larger, shall remain in place and shall be cut off not less than two (2') feet above the top of the completed sewer. When, in the opinion of the Engineer, sheeting or shoring above this level cannot be safely removed, it shall be left in place and the Contractor will be paid for the sheeting or shoring left-in-place at the prices bid. Sheeting ordered to be left-in-place shall be cut off at least two feet below the surface. No lumber for shoring or bracing exceeding that size customarily used, will be paid for unless the use of larger sizes shall have been ordered in writing by the Engineer.

5.23 Bedding of Pipe: All pipe shall be laid on foundations prepared in accordance with the various classes of bedding required by the trench width and trench depth for the size of the pipe to be laid, and as specified as follows:

(a) Class A Bedding: Class A bedding shall be either a concrete arch or concrete cradle. The height above the center of the pipe or the depth below the center of the pipe shall be at least one-fourth the nominal diameter of the pipe and shall extend down or up the sides of the pipe at least one-fourth the nominal diameter of the pipe. Concrete shall be Class "B" and shall be poured full width of the trench as excavated. Where the cradle method is used, the pipe shall be laid to line and grade on concrete blocking after which the concrete shall be placed to the limits described.

(b) Class B Bedding: Class B bedding shall be performed by first shaping the bottom of the trench to a level slightly lower than the bottom of the pipe. The pipe bed shall then be brought to the proper level by spreading and thoroughly tamping a layer of fine granulated moist earth and sand material so as to conform accurately to one-fourth the circumference of the pipe barrel. Trenches excavated to excess depths shall be bedded in compacted crushed stone or gravel brought to the same shaped levels as for the moist earth and sand material.

(c) Class C Bedding: Class C bedding shall be performed by shaping the trench bottom to accurately conform to the lower part of the pipe barrel for at least one-fourth its circumference. The shaping shall be done by hand trimming in undisturbed excavation. If this shaping cannot be performed accurately, the bedding shall be as described for Class B bedding above.

(d) Class D Bedding: Class D bedding shall be a flat bottom trench with bell holes, and may be used only with the approval of the Engineer, for pipe sizes 6 inch to 10 inch inclusive, in dry trenches having suitable foundation and backfill material and to the depths tabulated in the "Maximum Trench Widths and Depths" paragraph.

(e) Bell Holes: Bell holes shall be provided in all classes of bedding

so as to relieve pipe bells of all load, but small enough to insure that support is provided throughout the length of pipe barrel.

(f) Stone or Gravel Bedding Material: Stone or gravel bedding material shall consist of stone or pea gravel, clean and graded, 95 to 100 per cent of which shall pass a 1/2-inch sieve with 95 to 100 per cent retained on a No. 4 sieve. Bedding material shall be placed in the trench and thoroughly compacted to grade by tamping. Compacted bedding material shall be carried up the sides of the pipe to the heights shown for the various classes of bedding.

(g) Excess Trench Widths: If trenches are excavated to widths in excess of those specified in "Maximum Trench Widths and Depths" paragraph or if trench walls collapse, pipe shall be laid in accord with the requirements for at least the next better class of bedding at the expense of the Contractor.

(h) Payment: No extra payment will be made for bedding, the cost thereof to be included in the prices bid for sewers.

5.24 Maximum Trench Widths and Depths: Maximum trench widths and depths for the respective pipe sizes with the various classes of bedding and tamping shall be as follows:

TABLE I:

Maximum Trench Depths for Clay Pipe with Various Bedding Methods

		Bedding Method						
		Standard Strength Pipe			Extra Strength Pipe			
		C	B	A	D.	C	B	A
Pipe Size	Maximum Trench Width	Shaped Bottom Trench	Special Earth Bedding	Special Concrete Bedding	Flat Bottom Trench	Shaped Bottom Trench	Special Earth Bedding	Special Concrete Bedding
8'	2' - 2"	--	--	--	10	30	30	30
10"	2' - 4"	--	--	--	10	30	30	30
12"	2' - 6"	--	--	--	10	26	30	30
15"	2' - 10"	--	--	--	None	28	30	30
18"	3' - 2"	10	13	30	"	22	30	30
21"	3' - 6"	11	13	26	"	23	30	30
24"	3' - 10"	10	13	24	"	24	30	30
30"	4' - 7"	12	15	27	"	21	27	30
36"	5' - 5"	13	15	27	"	19	25	30

TABLE II:

Maximum Trench Depths for Reinforced Concrete Pipe, with Various Bedding Methods

			Bedding Method		
			C	B	A
Pipe Size	Maximum Trench Width	Class of Pipe	Shaped Bottom Trench	Special Earth Bedding	Special Concrete Bedding
15"	2' - 10"	3	11	14	30
15"	"	4	21	30	30
15"	"	5	30	30	30
18"	3' - 2"	3	11	13	30
18"	"	4	19	27	30
18"	"	5	30	30	30
21"	3' - 6"	3	11	15	30
21"	"	4	20	28	30
21"	"	5	30	30	30
24"	3' - 10"	3	12	15	30
24"	"	4	20	28	30
24"	"	5	30	30	30
30"	4' - 7"	3	13	16	30
30"	"	4	21	28	30
30"	"	5	30	30	30
36"	5' - 5"	3	13	16	28
36"	"	4	20	26	30
36"	"	5	30	30	30
42"	6' - 1"	3	14	18	30
42"	"	4	22	28	30
42"	"	5	30	30	30
48"	6' - 9"	3	14	17	29
48"	"	4	22	27	30
48"	"	5	30	30	30

(a) If trenches are excavated to widths in excess of those specified, or trench walls collapse, sewers shall be laid in accordance with the requirements for at least the next better class of bedding, at the expense of the Contractor as directed by the Engineer.

(b) The cost of special bedding and tamping shall be included in the

prices bid for sewers at various depths, except that the Engineer may authorize payment for concrete bedding or the use of crushed stone bedding where poor soil conditions are encountered, each in accordance with unit prices bid. The cost of furnishing extra strength sewer pipe shall be included in the prices bid for sewers at various depths. Where ordered by the Engineer, additional payment will be made for furnishing and installing extra strength sewer pipe, if the furnishing of such pipe exceeds the requirements of the preceding tables. Prior to delivery of pipe to the jobsite, the Contractor shall submit to the Engineer for approval a schedule showing, by stations, the various combinations of pipe strengths and bedding he proposes to use.

5.25 Laying Pipe: All sewer pipe shall be laid up grade with the spigots pointing down grade. The pipe and specials shall be laid in the trench so that, after the sewer is completed, the interior surface shall conform accurately to the grades and alignment fixed or given by the Engineer.

(a) No joints shall be made where surface of pipe and bell to be joined have been soiled by earth in handling until those soiled surfaces are thoroughly cleaned in a manner which will remove all traces of soil. The interior of the pipe shall carefully be made free of all dirt and superfluous material of every description, as the work proceeds.

(b) All pipe shall be carefully examined for cracks and other defects; no pipe shall be laid which is found defective. If any pipe is found to be defective after being laid, it shall be removed and replaced with sound pipe, at no additional expense to the Owner.

(c) The surfaces of pipe to be joined, as well as the gaskets, shall be cleaned and lubricated with a vegetable soap or other lubricating agent as recommended by the pipe manufacturer. Lubricating agent shall not be injurious and detrimental to the gasket. After each joint is installed, the gasket shall be checked for proper position prior to installation of the succeeding length of pipe.

(d) No pipe shall be laid on blocking of any kind, unless express permission from the Engineer to do so has been obtained, and then only at manholes and other structures where temporary blocking may facilitate installation of the pipe. After installation of the pipe, the blocking shall be carefully removed; all voids left by the blocking shall be filled with selected material and tamped.

5.26 Closing Pipe: When the work of pipe-laying is suspended for the night, and at other times, the end of the sewer shall be closed with a tight cover. The Contractor shall be responsible for keeping the sewer free from obstruction.

5.27 Concrete Encasement of Pipe: Where shown, and where otherwise directed by the Engineer, sewer pipe shall be completely encased with Class "C" concrete. The trench shall first be excavated not less than six (6") inches below the bell of the pipe and the pipe laid to line and grade on concrete blocking. Concrete shall then be placed to the full width of the trench, but in no case less than six (6") inches above the top of the pipe bell. No backfill material shall be placed in the trench for a period of at least 24 hours after the concrete encasement has been placed. Concrete encasement will be paid for at the unit price stated in the Proposal, such price to be paid in addition to that paid per foot of sewer for the various depths encountered. The unit price

stated in the Proposal shall include the costs of the additional depth of excavation, the furnishing of concrete blocking, and the laying of pipe to line and grade on the blocking.

5.28 Backfilling: After pipes are laid and joints inspected trenches shall be backfilled and thoroughly compacted to a density equivalent to at least 95% of maximum density as determined by a Standard AASHO-T-99 Proctor test. Should excavated material be unsuitable for backfill or compaction to required density the Contractor shall remove the unsuitable material and obtain and place suitable backfill material. At the beginning of the job a compaction test will be run by an independent testing laboratory to demonstrate that the Contractor's equipment and methods of compaction are suitable to accomplish the required density.

(a) Backfilling to a Height of Eighteen (18) Inches Above Pipe Barrel: Immediately after pipes are laid and joints inspected backfilling around the pipe and to a height of eighteen (18) inches above the pipe barrel shall be accomplished using selected backfill material consisting of finely divided earth, sand, crushed stone, pea gravel or other approved materials. The backfill material shall be carefully placed about the pipe and to the required height in uniform layers not exceeding six (6) inches in thickness. Each layer shall be thoroughly compacted with proper tools in a manner which will not disturb or injure the pipe, backfilling shall be carried on simultaneously on both sides of the pipe to prevent injurious side pressures.

(b) Remaining Backfill: Perform remaining backfill using general excavated material, provided such material is suitable for backfill and compaction to required density and does not contain more than 1/3 broken rock, of which no single stone or boulder shall weigh more than 50 pounds. Backfill material shall be placed in uniform layers not exceeding 6 inches in thickness; each layer shall be thoroughly compacted with heavy duty power tamping tools. The use of power "Jumping Jack" tampers will not be permitted.

(c) At locations outside roads, streets, walks and other traveled ways open to vehicular or pedestrian travel, the Engineer may waive the requirement of power compaction of backfill, in which case, after placing the remainder of the backfill up to a level slightly below the natural ground surfaces, surplus excavation shall be windrowed and maintained in a suitable manner to concentrate and pond surface run-off from rains over the trench. After sufficient settlement has been obtained, in the opinion of the Engineer, the Contractor shall complete the dressing, remove surplus material, clean-up the surface in accord with these Specifications. Whenever the trenches have not been properly filled or if settlement occurs, they shall be refilled, smoothed off, and made to conform to the surface of the ground. Backfilling shall be carefully performed, and the original surface restored, to the full satisfaction of the property owner. Surplus material shall be disposed of as directed by the Engineer.

(d) Payment: Payment for removal of unsuitable backfill and replacement of suitable backfill material to meet density requirements shall be at unit prices bid in the "Extra Work if Ordered by Engineer" item in the Proposal. Compaction tests will be paid for by the Owner. All other work in this paragraph shall be included in the price bid for sewers.

5.29 Surfacing of Trenches in Dirt Streets and Driveways: Where trenches are

along dirt streets and across dirt driveways open to vehicular traffic the top 2 inches of backfill up to the traveled surface shall be of crusher run stone or of a good grade, all-weather top soil, approved by the Engineer. All cost of equipment, labor, and materials required for such work shall be included in the prices bid for sewers.

5.30 Replacing Pavement: (See Detail Drawings at end of this section.) Pavement and base course which must be removed for constructing sewers, manholes, force mains and all other appurtenances in streets and driveways shall be replaced as specified. All types of base course removed shall be replaced with an 8" concrete base or a 12" soil cement base. Paving and base replaced shall have a minimum bearing on undisturbed earth outside of excavation lines of at least nine (9") inches. Before removal of any pavement it shall be cut with a suitable tool to define the limits of excavation and prevent raveling or breaking of pavement beyond these limits. Before replacing the base course the pavement will be sawed, with a concrete saw, to a depth of 2-inches as necessary to provide the minimum nine (9") inch bearing on undisturbed earth.

All backfilling of excavation within roadbed or driveway limits will be mechanically tamped in 6-inch layers using heavy duty tampers such as pneumatic jack-hammers with tamping foot attachment. Each layer shall be thoroughly tamped to a density equivalent to at least 95% of maximum density as determined by a AASHO T-99 Proctor test, except the top 12-inches of backfill which shall be compacted to 100% of the specific density.

Materials and construction methods for pavement and base course replacement shall conform to the standard specifications and policy and procedure for Accommodation of Utilities of the Georgia Department of Transportation.

(a) Concrete Pavement or Base: Concrete pavement shall be replaced on concrete or soil cement base. Concrete pavement and base course shall be Class "A" concrete. The surface finish of the concrete pavement shall conform with that of the existing pavement. The depth of the concrete pavement shall be equivalent to the existing concrete paving, but in no case less than 8-inches thick, The base course shall be 8-inches thick. The surface of the base course shall be left rough and shall be depressed below finished grade to accommodate the thickness of the specified wearing course. Water should be added to provide a damp, but not wet, sub-base before placing the base. Vertical faces of existing paving or base should be painted with a mixture of Portland cement and water, mixed to the consistency of heavy paint, prior to placing concrete base or pavement.

(b) Soil Cement Base: Soil cement base material shall consist of approximately 12% Portland cement and a friable local material. Local material and mix must be approved by the Resident Engineer. Soil cement base shall be placed to a depth of 12-inches in 6-inch layers. Each layer shall be compacted to 100% specified density. Water should be added to the subbase and vertical faces to provide a damp but not wet surface prior to placing the soil cement base.

(c) Asphalt Pavement and Bituminous Surface Treatment: Asphalt and bituminous surface treatment pavement removed shall be replaced with a 2-inch compacted thickness of sand asphalt wearing course, or other approved hot plant mix asphaltic concrete surface conforming to Section 350 of the Standard Specifications of the Georgia Department of Transportation. Concrete base shall be treated with a bituminous tack coat, and soil cement base shall be treated with a bituminous prime coat, conforming to

Transportation Department Standard Specifications, Section 313 and Section 312, respectively, prior to placing of asphalt. Care shall be taken to prime or tack coat vertical edges and corners. The surface contour of the asphalt pavement replaced shall conform to the existing pavement. Pavement shall not be placed on concrete base until concrete has properly cured. Pavement may be placed on soil cement base immediately after properly placing and priming.

Payment for removing and replacing pavement on concrete or soil cement base shall be at unit prices bid in the Proposal.

5.31 Earth Fill Over Pipes: Where shown, or as otherwise directed by the Engineer, in locations where little or no cover is obtained for sewers, a special earth fill, as shown, shall be placed to provide the necessary protection to the sewer line. Earth used for that fill shall be free from large pieces of rock, and shall be carefully placed to avoid damaging the sewer line. It shall be placed in layers around and over the pipe, and compacted with hand tools. Earth moving equipment will not be permitted to drive over the line of sewer. Earth fill will be paid for at the unit price per cubic yard stated in the Proposal. Pay volumes will be determined from cross sections of completed fill in-place above the original ground surface. The price bid for this item shall include the cost of obtaining borrow pits.

5.32 Testing and Cleaning: Before acceptance of the sewer system, the system shall be inspected, tested and cleaned to the satisfaction of the Engineer. Where obstructions are encountered, the Contractor will be required to clean the sewers by means of rods, swabs, or other instruments. The pipe line shall be straight and show a uniform grade between the manholes. Testing shall consist of measuring infiltration in the completed sewer by weirs or other suitable flow measuring devices. Adequate testing will be conducted to insure compliance with all of the above requirements.

5.33 Leakage: Leakage tests shall be made only when the ground water table is above the top of the sewer pipe and after all visible leaks have been stopped. In case the leakage exceeds the rates specified below, the sewer will not be accepted until repaired so that it will comply with these requirements. Leakage of ground water into any stretch of sewer, including manholes, and between adjoining manholes shall not exceed the following maximum rates:

(a) 0.10 gallons per inch diameter per foot of pipe per day for any stretch of sewer between adjoining manholes.

(b) 0.08 gallons per inch diameter per foot of pipe per day for any sewer, or system of sewers, one mile or less in length.

(c) 0.05 gallons per inch diameter per foot of pipe per day for any trunk sewer, or sewer system, the total length of which is greater than one mile.

5.34 Manholes: Manholes shall be constructed where shown and as may be directed by the Engineer. Manholes shall be 4, 5 and 6 feet in diameter as determined from the schedule of pipe sizes and line deflections, or as shown.

The top of manholes outside of roads, streets, and highways, shall be built to grades 12-inches above ground surface unless otherwise shown on the plans. Manholes in roads, etc., shall be built to grade designated by the Engineer. Vented manholes shall be constructed to elevations as shown on the plans.

(a) Brick Manholes: The bottom of each brick manhole shall be built of Class "B" concrete. The walls of the manholes shall be built of whole hard burned brick of good quality laid in cement mortar made of one part cement and two parts clean, sharp sand. Immediately before laying, the brick shall be thoroughly saturated with water. Every brick shall be carefully imbedded in mortar on its bottom and sides, and the walls shall be thoroughly plastered on the outisde with a smooth coat of 1:2 cement mortar. Reinforcing for brick masonry, if shown, shall conform with details shown, each hoop bar shall be completely bonded in the mortar joint between brick courses.

(b) Precast Concrete Manoles: Precast concrete manholes shall consist of precast reinforced concrete riser sections, concentric top section and a base section conforming to Typical Details shown on detail drawings. Precast manhole sections shall be manufactured in accordance with ASTM Designation C478-68 and these Specifications. Concrete shall have a minimum compressive strength of 4,000 psi when tested in accordance with ASTM Designation C39-66. Steel reinforcement shall be as specified in ASTM Designation C478-68. Wall and bottom sections shall have a minimum thickness of five inches (5"). Base sections for precast concrete manholes shall have a bottom poured monolithically with the walls. Base sections shall be furnished with inside diameters of 4, 5 and 6 foot as required. Base sections shall be furnished with a minimum height of 24-inches for pipes having a diameter of 8, 10, or 12-inches and a minimum height of 36 inches for pipes having a diameter of 15, or 18-inches. Minimum height for 5 or 6 foot diameter base sections shall be 48-inches regardless of pipe size. Base sections with 5 or 6 foot inside diameters shall be reduced to 4 foot inside diameter by means of an eccentric adapter ring or transition top.

The openings in the base section for the accommodation of the pipe shall be cast to closely conform to job conditions and shall provide a minimum clearance of 3-inches between the inside bottom of the base and outside bottom of the pipe barrel.

Manholes shall be bedded on not less than 6-inches compacted crushed stone at Contractor's expense. The crushed stone shall extend not less than 6-inches outside the walls of the manhole.

The opening between the pipe and manhole shall be sealed with a collar of mortar and brick. In lieu of the mortar and brick collar the opening between the pipe and manhole shall be filled with an EMBECO grout. A minimum clearance of 1-inch shall be provided around the pipe barrel for the accommodation of the EMBECO grout.

The riser sections shall be furnished in a minimum of 8-inch increments, and shall be 4 foot in diameter with tongue and groove joint to be sealed with approved butyl rubber or bitumastic material.

The top of the concentric top section shall have a minimum wall thickness of 8-inches to accommodate brick courses for height adjustment. A maximum of 3 brick courses will be allowed for adjustment of manhole to required grade.

Absorption shall not exceed 6 per cent when determined in accordance with ASTM Designation C497-67.

(1) Testing and Stamping: An inspection, by an independent testing laboratory approved by the Engineer, of the manufacturer's plant and product will be required to assure conformity of the precast manholes to these Specifications, and the minimum requirements of ASTM Designation C478-68. Each section of precast concrete manhole shall be stamped with the laboratory's stamp; the letters "W" and "S" shall be included as an integral part of the stamp. Each stamped section shall indicate the laboratory's configuration that it was accepted in accordance with applicable ASTM Specifications. A copy of such report will be furnished the Engineer with submittal of shop drawings for approval. Jobsite inspection shall be visual for shape, uniformity, and density.

(c) Manhole Steps: Manhole steps shall conform to the details shown. Steps for brick manholes shall be alternately spaced along a vertical centerline, and on approximately 15" centers. Steps shall be firmly and securely built into manhole walls as brickwork proceeds. Steps for precast concrete manholes shall be installed along a vertical centerline, and on approximately 14" to 16" centers. No extra payment will be made for manhole steps, the cost thereof to be included in the unit prices bid for manhole construction.

(d) Manhole Inverts: Manhole inverts shall be carefully constructed with cement grout, Class "B" concrete, or cement mortar brickwork; special care shall be taken to lay the channel and adjacent pipes to grade. Cement mortar shall be made of one part cement and two parts clear sharp sand. Channels shall be properly formed, rounded, and troweled smooth. The connections of the sewer with the wall and channel of the manhole shall be tight and smooth. No extra payment will be made for constructing manhole inverts; the cost thereof to be included in the unit prices bid for manhole construction.

(e) Drop Connections: Drop connections will be required, where called for on the Drawings, or as determined by the dimensions shown in "Drop Manhole Schedule", shown on the Drawings. Drop pipe shall be not smaller than 8-inches. Generally, drop pipe shall be one size smaller than the sewer which they serve. Openings in walls of precast concrete manholes for drop connections shall not be made at joints. Drop connection fittings and riser pipe shall be encased in brick and mortar or formed Class "C" concrete. Drop connections for both brick and precast concrete manholes shall conform with typical details for standard brick manholes as shown on the Drawings. Drop connections shall be carefully backfilled to prevent dangerous side pressures. Payment for drop connections will be made at the unit prices for the various depths stated in the Proposal, and shall include all necessary pipe, pipe fittings, brick or concrete encasement of drop pipe and extension of manhole base slab. Measurement for payment will be from invert of TEE to invert of ELL.

(f) Future Sewer Connections: Where shown, a 12-inch long pipe stub for future sewers, of such size as may be designated, shall be laid to proper grade and alignment and plugged with a factory plug with same type joint as used on the sewer pipe. All costs for furnishing and laying this pipe will be included under unit prices bid for manholes.

(g) Manhole Frames and Covers: Manhole frames and covers shall be as shown. Payment for manhole frames and covers will be made in accordance with the unit prices stated in the Proposal for the various types, the

prices shall include setting to finished grade as required, and grouting in place.

5.35 Concrete Piers: Concrete piers for cast, ductile iron pipe, and steel pipe sewers shall be constructed of Class "A" concrete, and shall be constructed as shown on standard Detail Drawing. A saddle, conforming to the outside of the pipe, shall be constructed in the top of all piers. Pipe shall be blocked to proper grade in the saddle and grouted in-place with 1:2 cement mortar. Pipe straps shall be fabricated as shown on standard Detail Drawing, shop painted as specified in the "Reinforcing Steel, Structural Steel and Miscellaneous Metal" section and shall be installed on all piers in accord with the standard Detail Drawing. Piers supporting pipe lines and across streams shall be anchored into rock, if rock is encountered and if directed by the Engineer, so as to resist overturning during periods of flood stages in the stream. Holes not smaller than 2-1/2 inches in diameter by 2 feet deep shall be drilled into the rock after excavation for the footing is complete; No. 6 reinforcing bars shall be embedded in grout made with high-early strength cement poured into the holes. In wet holes, grout shall be deposited with a tremie. Straight bars shall be used, and shall be bent over anchorage after the concrete has attained its full strength. Where unusually poor soil conditions are encountered, the Engineer may direct that spaced footings of concrete be constructed, or that pine piles be driven for support of piers. Payment for concrete piers will be made in accord with the unit prices stated in the Proposal. Measurement of heights for payment will be in accord with the dimensions shown. Separate payment will be made neither for anchoring the pier into the rock, nor for furnishing and installing pipestraps; the cost therefor shall be included in the price bid for piers.

5.36 Steel Sheet Piling: The Contractor shall furnish and install steel sheeting where shown, and to depths as directed by the Engineer. Sheeting shall be new, continuous-interlocking type fabricated from 1/4" thick open-hearth steel. The interlock shall be continuous, and shall be formed in a manner which will prohibit adjoining sections from becoming disengaged during driving. The sheeting shall be straight and uniform in section. The driving equipment shall be capable of supplying ample foot-pounds of impact so as not to damage the top of the sheeting. Severely damaged sheeting shall be removed and replaced with new sheeting, at the expense of the Contractor. Sheeting shall either be driven to, or shall be cut off to, a neat line and to the elevations shown, or as directed by the Engineer. The Contractor shall drive test sheeting, at the direction of the Engineer, to determine the depths to which sheeting shall be driven. Steel sheeting, including test sheeting will be paid for upon the basis of actual quantities installed, not including cut-offs, and at the unit prices stated in the Proposal.

5.37 Pin Piling for Piers and Manholes: Piling for concrete piers, manholes, headwalls, and other structures shall be equivalent to Class 3, Southern Pine Poles, American National Standards Institute, creosoted by the full cell process to retain 12 pounds of oil per cubic foot. Preservation shall comply with Federal Specification TT-W-556, Grade 1. Two (2) coats of hot creosote oil shall be applied to all saw cuts and bolt holes. Piling under piers and manholes may be limited to a safe bearing value of 5 tons each, with at least 10 feet penetration.

5.38 Rip-Rap: The Contractor shall furnish rip-rap as required, and where shown. Rip-rap may be dense individual rock fragments, not less than one cubic foot in size, or may be sand-cement in cloth bags with one (1) part cement and five (5) parts sand. Rip-rap shall be hand-placed and, if sand-cement in cloth

bags, shall be watered-down. Rip-rap shall be paid for on the basis of the number of square yards measured in place to the thickness specified.

5.39 Scheduling of By-Passing Sewage: A schedule of by-passes required for connections to existing sewers is required to be submitted for approval to the City of Athens. The City will confer with the Environmental Protection Division and the Contractor and the three parties will arrive at an approved schedule. The by-pass schedule may require weekend work, larger crews, overtime work or special equipment. Payment for work under connections to existing sewers will be made as provided in the Proposal and shall include meetings, schedules, approvals and all necessary work required to accomplish the connection on a schedule approved by the Environmental Protection Division.

5.40 Connections to Existing Manholes: At locations where new sewers are shown to be connected to existing manholes, the Contractor may temporarily block and/or divert sewage flows to facilitate construction operations. The work shall consist of making the opening in the manhole wall, inserting the new pipe to the elevation shown, filling the space in the wall around the pipe with mortar, and constructing and remodeling manhole inverts. High-early strength cement shall be used for mortar in order that proper channels may be formed in manhole bottoms with a minimum interruption of service to the existing sewer. The lump sum price bid for this work shall include all costs of labor, material, and equipment required to complete each connection; shall include the cost involved in blocking and/or diverting sewage flows, and shall include all cost of delays, temporary works, and maintaining existing sewers in service.

5.41 Connections to Existing Sewers: At locations where new sewers are shown to be connected to existing sewers at a new manhole, the Contractor shall first expose the existing sewer and install a supporting timber beam with suitable straps around the pipe so as to bridge the excavation for the new manhole. The manhole shall then be constructed complete with invert, frame, and cover. Under special conditions, and with approval by the Engineer, the Contractor may temporarily block and/or divert sewage flows to facilitate construction operations. Actual physical connection of the sewers will be made at a later date, as directed by the Engineer. The lump sum price bid for this work shall include all costs of labor, material, and equipment required to expose and support the existing sewer, block and/or divert sewage flows, make future physical connections, as well as all costs of delays, temporary works, and the maintenance of existing sewers in service. Manholes, frames, covers, and drop connections, if required, will be paid for separately in accord with the unit prices bid for the various items. No payment will be made for a connection to an existing pipe or manhole stub.

5.42 Construction Along Highways, Streets, and Roadways: The Contractor will install pipe lines and appurtenances along highways, streets, and roadways in accord with the applicable regulations of the State Department of Transportation and the Owner with reference to construction operations, safety, traffic control, road maintenance, and repair.

(a) Protection of Traffic: The Contractor shall provide suitable signs, barricades, and lights for protection of traffic in locations where traffic may be endangered by construction operations. All signs removed by reason of construction shall be replaced as soon as the condition which necessitated their removal has been cleared. No highway, street, and roadway shall be closed without first obtaining permission from the proper authorities.

(b) Construction Operations: The Contractor shall construct all work along highways, streets, and roadways using the following sequence of construction operations so as to least interfere with traffic.

(1) Stripping: Where the pipe line is laid along road shoulders, all sod, topsoil, and other material suitable for shoulder restoration shall be stripped and stockpiled for replacement.

(2) Trenching, Laying, and Backfilling: The Contractor shall open trenches, install pipe line, and backfill. The trench shall not be opened ahead of pipe laying operations any further than is necessary for proper laying operations. Trenches shall be progressively backfilled and consolidated; excess material shall be removed immediately behind laying operations.

(3) Shaping: The Contractor, immediately after completing backfilling operations, shall re-shape damaged cut and fill slopes, side ditches and ditch lines, and shall replace topsoil, sod, and other materials removed from shoulders in accord with the requirements, and to the full and complete satisfaction, of the Georgia Department of Transportation and the Owner. The Contractor, when installing pipe lines and appurtenances, shall provide sufficient personnel and equipment so as to simultaneously carry out all of the above operations.

(c) Excavated Material: Excavated material shall not be placed along highways, streets, and roadways in a manner which would cut off traffic. No scattered excavated material shall be allowed to remain on the pavement; all such material shall be kept swept away.

(d) Drainage Structures: All side ditches, culverts, cross drains, and other drainage structures shall be kept clear of excavated material and be free to drain at all times.

(e) Trees and Shrubbery: Trees and shrubbery along highways, streets, and roadways shall not be disturbed unless absolutely necessary, and then only as approved by the Engineer. Trees and shrubbery needing to be removed shall be properly heeled-in and replanted. Heeling-in and replanting shall be done under the direction of an experienced nurseryman.

(f) Maintaining Highways, Streets, Roadways and Driveways: The Contractor shall furnish a road grader, which shall be available for use at all times, for maintaining highways, streets, and roadways upon which work is being performed. All such highways, streets, and roadways shall be maintained in suitable condition for movement of traffic until completion and final acceptance of the work.

(g) Payment: No separate payment will be made for the above work. The cost of such work, and all costs incidental thereto, shall be included in the unit prices bid for the item to which the work pertains. Permits for such work will be obtained by the Owner. All costs for labor, materials, and supervisory personnel furnished by the Department of Transportation in connection with the work, if any, shall be at the expense of the Contractor. The Contractor shall be responsible for fully informing himself with regard to all Department of Transportation regulations and conditions relating to pipe line installation.

5.43 Railroad Crossing (Tunnel Liner): The Contractor shall furnish and install by the tunneling method, steel tunnel liner plates for the casing pipe and install either concrete, clay, cast or ductile iron pipe as the sewage carrying pipe within the tunnel casing.

The method of tunneling shall conform with the best modern practice. Entry pits at tunnel ends shall be solid sheeted and braced. The Contractor shall take all precautions, and shall comply with all requirements as may be necessary to protect private or public property.

Each tunnel shall be circular in section of the diameter as called for on the drawings. Casing for tunnels shall consist of tunnel liner plates of 12 gauge structural steel, either corrugated or of paneled out construction. After fabrication steel tunnel liner plates shall be hot dipped galvanized and, before delivery to jobsite, shall be fully bituminous coated for a minimum dry film thickness of 50 mils.

As the tunnel liner is installed, the voids between the exterior of the tunnel liner plates and the surrounding earth or rock surfaces shall be completely filled by pressure grouting. In no case shall more than fifty lineal feet of tunnel liner be installed without pressure grouting. If soil conditions warrants, or Engineer so directs, pressure grouting shall be performed at closer intervals. The sewer pipe of either clay, concrete, cast or ductile iron pipe shall then be installed to the line and grade shown on the drawings and blocked into position. No. 5 reinforcing bar hoops with 90 degree hooks each end shall then be placed over the pipe. The sewer pipe shall be bedded in Class "C" concrete or 1:3 grout to the one-quarter point of the outside diameter of the pipe barrel (see details on drawings). Each end of the tunnel shall then be plugged with a masonry or concrete wall having a minimum thickness of 12-inches. Suitable weepholes, minimum 6-inches square, shall be provided in downstream plug wall near the flow line of the tunnel to afford drainage.

All excavation for pit and tunnel shall be unclassified.

The price bid for tunnel shall include all necessary excavation and sheeting for pit, Railroad Protective Services, and all other miscellaneous materials and work required for a complete installation. Carrier pipe to be installed in tunnels shall be paid for at the unit price bid per lin. ft. of pipe installed.

(a) Railway Requirements:

(1) Interference with Railway Operations: The Contractor shall so arrange and conduct his work that there will be no interference with railroad operations, including train, signal, telephone, and telegraph service or damage to the property of the Railway Company or poles, wires and other facilities on the right-of-way. The Railway Engineer may take such precautions as he deems advisable to insure safety of trains or tracks.

(2) Watching and Flagging Protection: Any watching or flagging service required by the Railway Company for the safety of railroad operations, because of work being performed by the Contractor in connection therewith, will be provided by the Railway Company and the cost thereof shall be paid by the Contractor to the Railway Company.

(3) Damage by Railway Traffic: The Contractor shall assume all responsibility for any and all damage to his work, employees, equipment and materials, caused by operations to the Railway Company.

(4) Drainage Facilities: The Contractor shall preserve the effectiveness of any drainage facilities on Railway right-of-way or adjacent to tracks during his operations and leave them in as good condition and effectiveness as he found them.

(5) Insurance: The Contractor shall take out for the purpose of insuring against any and all risks of loss of life, personal injury, and property loss or damage, which may grow out of, or result from, or by reason of, or in connection with, said work or the acts of or operations of the Contractor, and maintain in full force and effect for the duration of the work, policies of insurance hereinafter specifically mentioned, said policies of insurance to be not less than the amount stipulated, as well as any other or additional insurance which should be taken out and maintained in force for or in connection with such work by the Contractor in compliance with any Federal, State, or Municipal law, statute or regulation, and furnish to the Owner, before commencing said work, the original of the policy, or duly certified copies of such insurance, or in lieu thereof, certificates from the underwriters of such insurance, viz:

a. Workmen's Compensation or Employer's Liability Insurance according to the laws of the State.

b. Contractor's Public Liability Insurance to protect the Contractor and subcontractors:

1. For loss of life or injury to persons in the amount of $250,000.00 for any one person and $500,000.00 for any one accident.

2. For property loss or damage in the amount of $250,000.00 for each accident and not less than $500,000.00 aggregate.

c. The original policy of Railroad Protective Liability Insurance naming the Railway Company as the insured, shall be designated as:

1. For loss of life or injury to person in an amount not less than $250,000.00 for any one person and not less than $500,000.00 for any one accident.

2. For property loss or damage in an amount not less than $500,000.00 aggregate. The Contractor shall comply with all special requirements of the Railway Company as related to Public Liability and Property Damage Insurance and shall furnish copies of certificates of coverage for such insurance taken out in favor of the said Railway Company, as well as copies of certificates for such insurance taken out in the name of the Contractor.

3. Indemnity: The Contractor shall indemnify and save harmless the Railway Company against any and all loss, or

damage to property of the Company and against claims, demands, suits, judgments, fines or sums of money accruing or claimed to accrue to any person, corporation, municipality, firm or company, against the Company, for any loss of life, or personal injury, or property loss or damage, whatsoever, or for violation of any municipal law or regulation, growing out of, or claiming to grow out of, any act or omission of or method pursued, or hazard encountered by the Contractor, or his agent, servant or employees engaged or employed in or about or in connection with the work to be done by the Contractor, and against any and all claims or liens which may be made or placed upon the said work by any laborer, materialman or furnisher, or any other person.

(b) Notification of Starting Work: The Contractor shall notify the Superintendent of the Railway Company, at least three days in advance when he will start work adjacent to tracks.

5.44 Highway Crossing(s) (Tunnel Liner): The Contractor shall furnish and install by the tunneling method, steel tunnel liner plates for the casing pipe and install either concrete, clay, cast or ductile iron pipe as the sewage carrying pipe within the tunnel casing.

The method of tunneling shall conform with the best modern practice. Entry pits at tunnel ends shall be solid sheeted and braced. The Contractor shall take all precautions, and shall comply with all requirements as may be necessary to protect private or public property.

Each tunnel shall be circular in section of the diameter as called for on the Drawings. Casing for tunnels shall consist of tunnel liner plates of 12 gauge structural steel, either corrugated or of paneled out construction. After fabrication steel tunnel liner plates shall be hot dipped galvanized and, before delivery on jobsite, shall be fully bituminous coated for a minimum dry film thickness of 50 mils.

As the tunnel liner is installed, the voids between the exterior of the tunnel liner plates and the surrounding earth or rock surfaces shall be completely filled by pressure grouting. In no case shall more than ten lineal feet of tunnel liner be installed without pressure grouting. If soil conditions warrants, or Engineer so directs, pressure grouting shall be performed at closer intervals. The sewer pipe of either clay, concrete, cast or ductile iron pipe shall then be installed to the line and grade shown on the Drawings and blocked into position. No. 5 reinforcing bar hoops with 90 degree hooks each end shall then be placed over the pipe. The sewer pipe shall be bedded in Class "C" concrete or 1:3 grout to the one-quarter point of the outside diameter of the pipe barrel (see details on Drawings). Each end of the tunnel shall then be plugged with a masonry or concrete wall having a minimum thickness of 12-inches. Suitable weepholes, minimum 6-inches square, shall be provided in downstream plug wall near the flow line of the tunnel to afford drainage.

All excavation for pit and tunnel shall be unclassified.

The price bid for tunnel shall include all necessary excavation and sheeting for pit, Highway Protective Services, and all other miscellaneous materials and work required for a complete installation. Carrier pipe to be installed in tunnels shall be paid for at the unit price bid per lin. ft. of pipe installed.

5.45 Boring Method for Sewers: Where called for on the plans, sewers shall be constructed by the boring method using steel casing pipe and installing either cast or ductile iron pipe as the sewer carrying pipe within the casing.

The method of boring shall conform with the best modern practice. "Wet" boring will not be allowed. Entry pits at casing ends shall be solid sheeted and braced. The Contractor shall take all precautions, and shall comply with all requirements as may be necessary to protect private or public property, improvements to same and services of the Railroad Companies and/or the Georgia Department of Transportation. The Contractor shall also comply with the requirements of the Railroad Companies as set forth under Article 5.43 and of the Georgia Department of Transportation as set forth under Article 5.44.

Steel casing pipe shall be manufactured of steel having a minimum yield point (yield strength) of 35,000 psi.

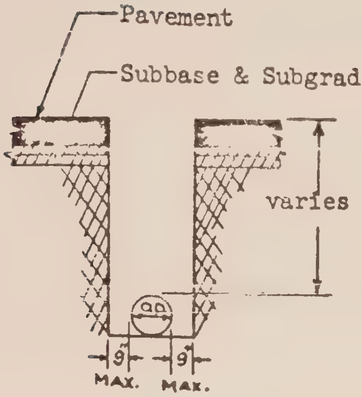
After installation of the casing pipe the carrier pipe shall be installed as detailed on the plans. The casing pipes shall be left in place and each end plugged with a masonry or concrete wall having a minimum thickness of 8-inches. Provide suitable weep holes in downstream plug wall near the flow line of the casing to provide drainage.

All cost of boring and installing casing and appurtenant work shall be included in the price bid per lin. ft. of casing pipe installations. Carrier pipe to be installed in casing shall be paid for at the unit price bid for lin. ft. of pipe installed.

5.46 Measurement for Payment: Measurement for payment of sewer lines will be made along the top of the pipe from center to center of manholes less the length of cast iron or ductile iron pipe sewers constructed on piers, in trenches or in tunnels. Cast iron and ductile iron pipe sewers will be measured for payment for the actual laying lengths constructed of the various sizes, unless lump sum payment is provided for herein. Measurement for payment for Class "B" concrete bedding will be made only at locations, and to limits as authorized by the Engineer, where poor soil conditions are encountered as provided for in the "Bedding of Pipe" paragraph. Measurement for payment for Class "B" concrete bedding and Class "B" concrete encasement will be made to the limits shown. Measurement and payment for all other work will be made in accord with the details shown, as specified, and as provided for in the proper item in the Proposal.

REMOVING AND REPLACING PAVING
STAGE CONSTRUCTION

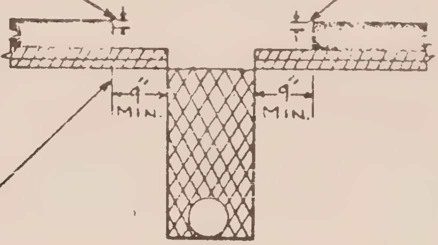
STAGE
(1)


Pavement
Subbase & Subgrade, etc.
varies
9
9
MAX.
MAX.

Pavement to be sawed or cut to neat lines as directed by the Engineer

STAGE
(2)

Cut 2" deep with concrete saw to insure a straight vertical edge for patch.

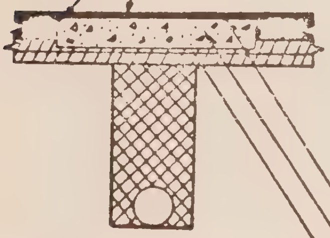


Replace material in trench as directed by Engineer. Material to be compacted in layers not to exceed 6 inches.

Remove extra 9 inches of pavement on each side of trench or to visible overbreak which ever is greater.

STAGE
(3)

Tack coat required



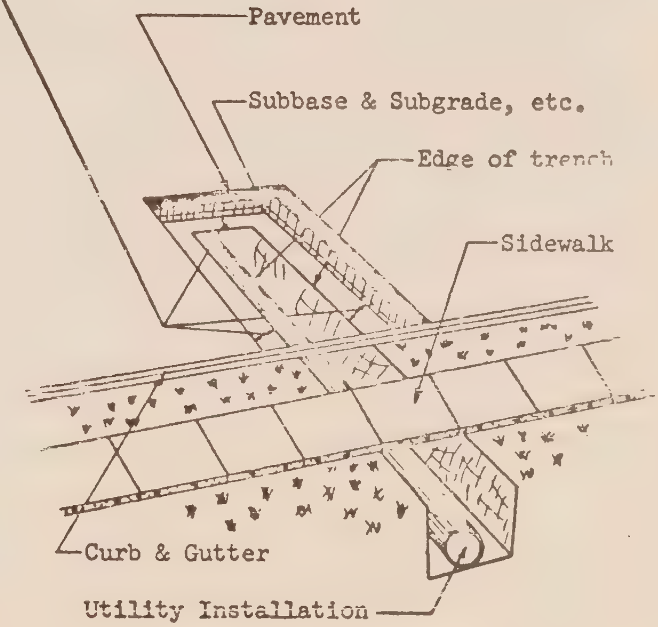
Subbase & subgrade, etc. to be replaced as directed by the Engineer.

*Minimum 8" Class "A" portland cement concrete or Minimum 12" soil cement base.

Top 2" to be replaced as specified

Surfaces to be cleaned and Bituminous tack coat or prime applied before placement of asphaltic top.

STAGE
(4)


Pavement
Subbase & Subgrade, etc.
Edge of trench
Sidewalk
Curb & Gutter
Utility Installation

Procedure same as Stages 1, 2 and 3.

SECTION NO. 6

UPPER MIDDLE OCONEE PUMPING STATION

6.01 Work to be Done: The work described by this Section consists of furnishing all materials and equipment and performing all labor necessary for the construction of Pumping Station complete, including clearing, grubbing, excavating, dewatering, concrete work, mechanical work, electrical work, painting, testing, service, finished grading, and clean-up, as shown on the Drawings and/or specified.

6.02 Pump: The Contractor shall furnish and install two totally submersible type centrifugal sewage pump, capable of pumping 350 gpm of raw, unscreened sewage against a TDH of 11 feet through a 4-inch discharge line; and driven by a 2.5 HP, 1,750 RPM, 230 Volt, 3 Phase, 60 Hertz motor. Pump shall be a 4-inch Model CS3082-2 as manufactured by Flygt Corporation, Norwalk, Connecticut, or equivalent.

(a) Pump shall be designed in a manner which will allow the pump to be automatically connected to the discharge piping when lowered into place. Pump shall be easily removable for inspection and service, requiring neither bolts, nuts, and other fastenings to be removed for this purpose, nor need personnel to enter pump well. Pump shall be fitted with a galvanized chain of adequate strength and length to permit raising the pump for inspection and removal.

(b) Stator casing, oil casing, and impeller shall be of gray iron construction; parts coming into contact with sewage shall be protected by a coat of rubber-asphalt paint. External bolts and nuts shall be of stainless steel. Wear ring between impeller and pump housing shall be of bronze. Impeller shall be of single-vane, non-clog design, capable of passing solids, fibrous material, and heavy sludge, and constructed with long throughway with no acute turns. A sliding bracket shall be an integral part of the unit; pump casing shall have a machined angle connection with yoke to connect with cast iron discharge connection. There shall be provided a cast iron discharge connection, which shall be bolted to the floor of the sump, and be designed to receive the pump angle connection without the need of bolts and nuts. Pump shall have a double mechanical seal composed of two face seals, each consisting of one fixed and one rotating tungsten carbide ring held in contact by spring pressure. The seal shall require neither maintenance nor adjustment, and shall be easily replaced. Pump motor shall be housed in a watertight casing, with the stator specially insulated to offer high resistance to moisture, heat, and aging.

(c) Access frame and cover shall be a square cast iron frame and two piece checkered cover with a 32-inch square opening; shall have an inter gasketed lid with locking bar and shall be equivalent to Neenah R-1871D.

(d) Guide bars (furnish two) shall permit raising and lowering the pump. Guide bars shall be of 2 inch galvanized pipe of adequate length to extend from the lower guide holders on the pump discharge connection to the upper guide holder mounted on the access frame.

(e) Automatic controls shall consist of two combination magnetic starters with three thermal overloads, H-O-A selector switch and 115 volt control

circuit. Starters shall be automatically operated by float encapsulated mercury switch level controls at the levels shown on the Drawings. In addition float switch shall actuate a 60 watt yellow high level alarm light and a weatherproof horn. Starters shall be installed in a NEMA 3R stainless steel enclosure with hasp and padlock. Alarm light and horn shall be mounted 10-feet above finished grade on the incoming service pole.

(f) Shop Painting shall consist of preparing surfaces in accord with the requirements of the primer manufacturer and applying a prime coat of Koppers Co.'s "Inertol Rustinhibitive Primer 621", or approved equivalent; total dry film thickness shall be not less than 1-1/2 mils. The shop painting is to prevent corrosion during shipment and storage.

6.03 Field Painting: The pump, guide angles and all miscellaneous steel below grade shall be sandblasted to a No. 5 near white finish and coated to a total dry thickness of 16 mils with Inertol Epoxitar, Hoppers 300-M, or Indurall Induron. Application shall be in accordance with the manufacturer's printed instructions.

Steel work above the top slab shall be free of all oil, grease and foreign material and primed with one coat of Koppers No. 626 Primer and two finish coats of Rigortex 5502 machinery enamel.

Cast iron pipe and fittings shall not be painted.

6.04 Electrical Work: The Contractor shall furnish and install the complete electrical system as shown on the Drawings and/or specified. This shall include installing the pump, control panel, underground service, meter base, and weather head 20 feet above the ground on the Utility Company transformer pole. Underground service shall be 4 - #12 Type RHW-USE 75° C. conductors in 3/4" rigid galvanized conduit.

6.05 Plug Valve shall be eccentric type with resilient plug faces suitable for sewage and an operating pressure of 125 psi. Valve shall open LEFT. Valve accessories shall include extension stem, flow box and tee wrench.

6.06 Roadway Paving: The existing roadway and the apron shown on the drawings shall be surfaced with 8-inches of base course conforming to State of Georgia Department of Transportation Section 815 and compacted in accordance with Paragraph 310.03F1.

6.07 Fencing: Provide a complete protection type fence around the pump statio where shown on the Drawings. The fence shall be seven feet high overall, consisting of 2" mesh x 9 gauge x 72" galvanized after weaving fabric and 3-strand barbed wire on malleable iron post tops, 2-1/2" O.D. (3.652 lbs. per ft.) galvanized line posts, 3" O.D. (5.79 lbs. per ft.) galvanized end posts, 4" O.D. (9.109 lbs. per ft.) for gate posts more than 8-ft. O.D. (2.272 lbs. per ft.) galvanized top rail with extra long pressed steel sleeves. Terminal, corner and gate posts shall have the necessary strut and tie bracing. Equip gates with heavy duty latches, keepers, and heavy duty hardened bronze padlock with duplicate master keys. Gate frame shall be 2" O.D. (2.717 lbs. per ft.) galvanized pipe with welded corner. Set posts at not more than 10-foot centers full 3 feet deep in concrete footings placed the full size of holes as excavated.

6.08 Level Gauge: Furnish and install one float operated water level recorder with horizontal ball bearing chart drum powered by a 30-day weight driven clock. The recorder shall have a 9.6" x 12" chart and a range of 0 - 10 feet. The recorder shall be furnished with capillary pen with Lucite reservoir, 25 feet of stainless steel float line with set end hook, drive weight, 6-inch diameter float, counter weight, and 100 recording charts.

The recorder shall be mounted in a 12 ga. galvanized steel weather proof gasketed enclosure with locking hasp, supported on an 8-inch diameter cast iron flanged pipe column 7'-0" high. The support column shall be mounted on an 8-inch flanged pipe thimble topped for studs. The recorder shall be Leopold & Stevens, Type "F", or equivalent as manufactured by Builders Providence or equal.

6.09 Payment: No separate payment will be made for the work of this Section, except as specified. The cost of the work, and all costs incidental thereto shall be included in the price bid for the item to which the work pertains.

GA 2 67 57 66

New

Renewal of

GENERAL LIABILITY—AUTOMOBILE POLICY

1 RELIANCE INSURANCE COMPANY
Philadelphia, Pennsylvania

6 UNITED PACIFIC INSURANCE COMPANY
Tacoma, Washington

1 ← Coverage is provided in the Company designated by Number. Each is a Stock Insurance Company, herein called the Company.

E. H. CRUMP COMPANY
OF GEORGIA, INC.
SUITE 430 - 100 COLONY SQUARE, ATLANTA, GA. 30361
TELEPHONE: (404) 892-0600
INSURANCE AGENTS & BROKERS

DECLARATIONS

Item 1. Named Insured and Address: (No., Street, Town, County, State, ZIP)

City of Athens, Georgia

Athens, Georgia

Item 2. Policy Period:

From 12-1-77 to 8-24-78
12:01 A.M., standard time at the address of the **named insured** as stated herein.

The named insured is:
☐ Individual ☐ Corporation ☐ Partnership ☐ Joint Venture ☐ other

Business of the **named insured** is (Enter Below)

Item 3. The insurance afforded is only with respect to such of the following Parts designated by an "X" in ☒ and Coverages therein as are indicated by specific premium charge or charges. The limit of the company's liability against each such Coverage shall be as stated herein, subject to all the terms of this policy having reference thereto.

ADVANCE PREMIUM	LIMITS OF LIABILITY				
	EACH OCCURRENCE	AGGREGATE			
$	$	$		Bodily Injury Liability	☐ Comprehensive General Liability
$	$	$		Property Damage Liability	☐ Owners', Landlords' and Tenants' Liability
	AGGREGATE				☐ Manufacturers' and Contractors' Liability
					☐ Contractual Liability
$	$			Personal Injury Liability	☐ Completed Operations and Products Liability
	EACH PERSON	EACH OCCURRENCE	EACH ACCIDENT		
$	$	XXXXXX	$	☐ Premises Medical Payments	
	XXXXXX	$	XXXXXX	Personal Liability	☐ Comprehensive Personal
$	$	XXXXXX	$	Personal Medical Payments	☐ Farmer's Comprehensive Personal
	XXXXXX	$ 250	XXXXXX	Physical Damage to Property	
$	Market value not exceeding $300 each animal			Animal Collision	(Applicable to Farmer's Comprehensive Personal Insurance only)
$	$	$	XXXXXX	**Bodily Injury** Liability	☐ Comprehensive Automobile Liability
$	XXXXXX	$	XXXXXX	**Property Damage** Liability	
$	$	XXXXXX	XXXXXX	Automobile Medical Payments	
$	$	XXXXXX	$	Uninsured Motorists	
$	See Coverage Part for Limits of Liability			☐ Garage Insurance	
$	See Coverage Part for Limits of Liability			☐ Automobile Physical Damage Insurance (Non-Fleet)	
$				☐ Automobile Physical Damage Insurance (Fleet Automatic)	
$ 795.	See Coverage Part for Limits of Liability			☒ Owner's Protective Liability - L-2998	
$	See Coverage Part for Limits of Liability			☐	
$ 795.	Total Advance Premium				

Premium is Payable (Enter Below)

$ At Inception; $ 1st Anniversary; $ 2nd Anniversary. †If Policy Period more than one year

$ Gross Estimated Premium $ Net Estimated Premium †Not applicable in Texas

/mb 12/1/77

Audit Period: Annual, unless otherwise stated.** (Enter Below)

Item 4. During the past three years no insurer has cancelled insurance, issued to the **named insured**, similar to that afforded hereunder, unless otherwise stated herein:** (Enter Below)

E. H. CRUMP COMPANY OF GEORGIA, INC.

Countersigned 12/1 19 77 at Atlanta, Georgia

By

Authorized Representative

**ABSENCE OF AN ENTRY MEANS "NO EXCEPTION"

PKP-6300F Ed. 10-1-66 Rev. 1-1-73

THE COMPANY DESIGNATED ON THE DECLARATIONS PAGE

In consideration of the payment of the premium, in reliance upon the statements in the declarations made a part hereof and subject to all of the terms of this policy, agrees with the **named insured** as follows:

Supplementary Payments

The company will pay, in addition to the applicable limit of liability:

(a) all expenses incurred by the company, all costs taxed against the **insured** in any suit defended by the company and all interest on the entire amount of any judgment therein which accrues after entry of the judgment and before the company has paid or tendered or deposited in court that part of the judgment which does not exceed the limit of the company's liability thereon;

(b) premiums on appeal bonds required in any such suit, premiums on bonds to release attachments in any such suit for an amount not in excess of the applicable limit of liability of this policy, and the cost of bail bonds required of the **insured** because of accident or traffic law violation arising out of the use of any vehicle to which this policy applies, not to exceed $250 per bail bond, but the company shall have no obligation to apply for or furnish any such bonds;

(c) expenses incurred by the **insured** for first aid to others at the time of an accident, for **bodily injury** to which this policy applies;

(d) reasonable expenses incurred by the **insured** at the company's request in assisting the company in the investigation or defense of any claim or suit, including actual loss of earnings not to exceed $25 per day.

Definitions

When used in this policy (including endorsements forming a part hereof):

"automobile" means a land motor vehicle, trailer or semitrailer designed for travel on public roads (including any machinery or apparatus attached thereto), but does not include **mobile equipment;**

"bodily injury" means bodily injury, sickness or disease sustained by any person which occurs during the policy period, including death at any time resulting therefrom;

"collapse hazard" includes "structural property damage" as defined herein and **property damage** to any other property at any time resulting therefrom. "Structural property damage" means the collapse of or structural injury to any building or structure due to (1) grading of land, excavating, borrowing, filling, back-filling, tunnelling, pile driving, cofferdam work or caisson work or (2) moving, shoring, underpinning, raising or demolition of any building or structure or removal or rebuilding of any structural support thereof. The **collapse hazard** does not include **property damage** (1) arising out of operations performed for the **named insured** by independent contractors, or (2) included within the **completed operations hazard** or the **underground property damage hazard,** or (3) for which liability is assumed by the **insured** under an **incidental contract;**

"completed operations hazard" includes **bodily injury** and **property damage** arising out of operations or reliance upon a representation or warranty made at any time with respect thereto, but only if the **bodily injury** or **property damage** occurs after such operations have been completed or abandoned and occurs away from premises owned by or rented to the **named insured.** "Operations" include materials, parts or equipment furnished in connection therewith. Operations shall be deemed completed at the earliest of the following times:

(1) when all operations to be performed by or on behalf of the **named insured** under the contract have been completed,

(2) when all operations to be performed by or on behalf of the **named insured** at the site of the operations have been completed, or

(3) when the portion of the work out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

Operations which may require further service or maintenance work, or correction, repair or replacement because of any defect or deficiency, but which are otherwise complete, shall be deemed completed.

The completed operations hazard does not include bodily injury or property damage arising out of

(a) operations in connection with the transportation of property, unless the **bodily injury** or **property damage** arises out of a condition in or on a vehicle created by the loading or unloading thereof,

(b) the existence of tools, uninstalled equipment or abandoned or unused materials, or

(c) operations for which the classification stated in the policy or in the company's manual specifies "including completed operations";

"elevator" means any hoisting or lowering device to connect floors or landings, whether or not in service, and all appliances thereof including any car, platform, shaft, hoistway, stairway, runway, power equipment and machinery; but does not include an **automobile** servicing hoist, or a hoist without a platform outside a building if without mechanical power or if not attached to building walls, or a hod or material hoist used in alteration, construction or demolition operations, or an inclined conveyor used exclusively for carrying property or a dumbwaiter used exclusively for carrying property and having a compartment height not exceeding four feet;

"explosion hazard" includes **property damage** arising out of blasting or explosion. The **explosion hazard** does not include **property damage** (1) arising out of the explosion of air or steam vessels, piping under pressure, prime movers, machinery or power transmitting equipment, or (2) arising out of operations performed for the **named insured** by independent contractors, or (3) included within the **completed operations hazard** or the **underground property damage hazard,** or (4) for which liability is assumed by the **insured** under an **incidental contract;**

"incidental contract" means any written (1) lease of premises, (2) easement agreement, except in connection with construction or demolition operations on or adjacent to a railroad, (3) undertaking to indemnify a municipality required by municipal ordinance, except in connection with work for the municipality, (4) sidetrack agreement, or (5) **elevator** maintenance agreement;

"insured" means any person or organization qualifying as an insured in the "Persons Insured" provision of the applicable insurance coverage. The insurance afforded applies separately to each **insured** against whom claim is made or suit is brought, except with respect to the limits of the company's liability;

"mobile equipment" means a land vehicle (including any machinery or apparatus attached thereto), whether or not self-propelled, (1) not subject to motor vehicle registration, or (2) maintained for use exclusively on premises owned by or rented to the **named insured,** including the ways immediately adjoining, or (3) designed for use principally off public roads, or (4) designed or maintained for the sole purpose of affording mobility to equipment of the following types forming an integral part of or permanently attached to such vehicle: power cranes, shovels, loaders, diggers and drills; concrete mixers (other than the mix-in-transit type); graders, scrapers, rollers and other road construction or repair equipment; air-compressors, pumps and generators, including spraying, welding and building cleaning equipment; and geophysical exploration and well servicing equipment;

"named insured" means the person or organization named in Item 1. of the declarations of this policy;

"named insured's products" means goods or products manufactured, sold, handled or distributed by the **named insured** or by others trading under his name, including any container thereof (other than a vehicle), but **"named insured's products"** shall not include a vending machine or any property other than such container, rented to or located for use of others but not sold;

"occurrence" means an accident, including continuous or repeated exposure to conditions, which results in **bodily injury** or **property damage** neither expected nor intended from the standpoint of the **insured;**

"policy territory" means:

(1) the United States of America, its territories or possessions, or Canada, or

(2) international waters or air space, provided the **bodily injury** or **property damage** does not occur in the course of travel or transportation to or from any other country, state or nation, or

(3) anywhere in the world with respect to damages because of **bodily injury** or **property damage** arising out of a product which was sold for use or consumption within the territory described in paragraph (1) above, provided the original suit for such damages is brought within such territory;

"products hazard" includes **bodily injury** and **property damage** arising out of the **named insured's products** or reliance upon a representation or warranty made at any time with respect thereto, but only if the **bodily injury** or **property damage** occurs away from premises owned by or rented to the **named insured** and after physical possession of such products has been relinquished to others;

"property damage" means (1) physical injury to or destruction of tangible property which occurs during the policy period, including the loss of use thereof at any time resulting therefrom, or (2) loss of use of tangible property which has not been physically injured or destroyed provided such loss of use is caused by an **occurrence** during the policy period;

"underground property damage hazard" includes underground property damage as defined herein and **property damage** to any other property at any time resulting therefrom. "Underground property damage" means **property damage** to wires, conduits, pipes, mains, sewers, tanks, tunnels, any similar property, and any apparatus in connection therewith, beneath the surface of the ground or water, caused by and occurring during the use of mechanical equipment for the purpose of grading land, paving, excavating, drilling, borrowing, filling, back-filling or pile driving. The **underground property damage hazard** does not include **property damage** (1) arising out of operations performed for the **named insured** by independent contractors, or (2) included within the **completed operations hazard,** or (3) for which liability is assumed by the **insured** under an **incidental contract.**

OWNERS' AND CONTRACTORS' PROTECTIVE LIABILITY INSURANCE COVERAGE PART COVERAGE FOR OPERATIONS OF DESIGNATED CONTRACTOR

Reliance Insurance Company
United Pacific Insurance Company

SCHEDULE Policy No. GA 2 67 57 66

ADVANCE PREMIUM	**LIMITS OF LIABILITY**		**COVERAGES**
$ 479.	$ 300,000. Each Occurrence		A. Bodily Injury Liability
$ 316.	$ 150,000. Each Occurrence	$ 300,000. Aggregate	B. Property Damage Liability
$	Form Nos. of Endts. Attached at Issue:		
$ 795.	**Total Advance Premium**		

Advance Premium		Rates		Premium Bases	Classification	Code No.
Bodily Injury	Property Damage	Bodily Injury	Property Damage			
		Per $100 of Cost		Cost	Construction Operations-Owner, N.O.C.	
212.	119.	.0423	.0237	500,000	(not railroads)-excluding operations	
111.	65.	.0221	.0129	500,000	on board ships	16292
156.	122.	.0055	.0043	2,845,043		
	10.				Increased Limits Charge	
					Minimum Prem.: B.I. $ 37. P.D. $ 22.	

Check If This Provision Is Applicable: ☒ The person or organization designated below as the Contractor has undertaken to pay the premium for this policy and shall be entitled to receive any return premiums, if any, which may become payable under the terms of this policy.

Designation of Contractor W. L. Carey, General Contractor, Inc. Mailing Address P. O. Box 441
Royston, Georgia 30661

Location of Covered Operations Contract G - Division 1 & 2
Sewage Improvements for The City of Athens, Georgia

When used as a premium basis:
"cost" means the total cost to the **named insured** with respect to operations performed for the **named insured** during the policy period by independent contractors of all work let or sub-let in connection with each specific project, including the cost of all labor, materials and equipment furnished, used or delivered for use in the execution of such work, whether furnished by the owner, contractor or subcontractor, including all fees, allowances, bonuses or commissions made, paid or due.

I. COVERAGE A—BODILY INJURY LIABILITY
COVERAGE B—PROPERTY DAMAGE LIABILITY

The company will pay on behalf of the **insured** all sums which the **insured** shall become legally obligated to pay as damages because of

Coverage A. **bodily injury** or
Coverage B. **property damage**

to which this policy applies, caused by an **occurrence** and arising out of (1) operations performed for the **named insured** by the contractor designated in the declarations at the location designated therein or (2) acts or omissions of the **named insured** in connection with his general supervision of such operations, and the company shall have the right and duty to defend any suit against the **insured** seeking damages on account of such **bodily injury** or **property damage**, even if any of the allegations of the suit are groundless, false or fraudulent, and may make such investigation and settlement of any claim or suit as it deems expedient, but the company shall not be obligated to pay any claim or judgment or to defend any suit after the applicable limit of the company's liability has been exhausted by payment of judgments or settlements.

Exclusions

This policy does not apply:

(a) to liability assumed by the **insured** under any contract or agreement except an **incidental contract**; but this exclusion does not apply to a warranty that **work** performed by the designated contractor will be done in a workmanlike manner;

(b) to **bodily injury** or **property damage** occurring after
(1) all **work** on the project (other than service, maintenance or repairs) to be performed by or on behalf of the **named insured** at the site of the covered operations has been completed or
(2) that portion of the designated contractor's **work** out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project;

(c) to **bodily injury** or **property damage** arising out of any act or omission of the **named insured** or any of his employees, other than general supervision of **work** performed for the **named insured** by the designated contractor;

(d) to any obligation for which the **insured** or any carrier as his insurer may be held liable under any workmen's compensation, unemployment compensation or disability benefits law, or under any similar law;

(e) to **bodily injury** to any employee of the **insured** arising out of and in the course of his employment by the **insured** or to any obligation of the **insured** to indemnify another because of damages arising out of such injury; but this exclusion does not apply to liability assumed by the **insured** under an **incidental contract**;

(f) to **property damage** to
(1) property owned or occupied by or rented to the **insured**,
(2) property used by the **insured**,
(3) property in the care, custody or control of the **insured** or as to which the **insured** is for any purpose exercising physical control, or
(4) **work** performed for the **insured** by the designated contractor;

(g) to **bodily injury** or **property damage** due to war, whether or not declared, civil war, insurrection, rebellion or revolution or to any act or condition incident to any of the foregoing, with respect to (1) liability assumed by the **insured** under an **incidental contract**, or (2) expenses for first aid under the Supplementary Payments provision of the policy;

(h) to **bodily injury** or **property damage** arising out of (1) the ownership, maintenance, operation, use, loading or unloading of any **mobile equipment** while being used in any prearranged or organized racing, speed or demolition contest or in any stunting activity or in practice or preparation for any such contest or activity or (2) the operation or use of any snowmobile or trailer designed for use therewith;

(i) to **bodily injury** or **property damage** arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any water course or body of water; but this exclusion does not apply if such discharge, dispersal, release or escape is sudden and accidental;

(j) to loss of use of tangible property which has not been physically injured or destroyed resulting from
(1) a delay in or lack of performance by or on behalf of the **named insured** of any contract or agreement, or
(2) the failure of the **named insured's products** or **work** performed by or on behalf of the **named insured** to meet the level of performance, quality, fitness or durability warranted or represented by the **named insured**;

but this exclusion does not apply to loss of use of other tangible property resulting from the sudden and accidental physical injury to or destruction of the **named insured's products** or **work** performed by or on behalf of the **named insured** after such products or **work** have been put to use by any person or organization other than an **insured**.

II. PERSONS INSURED

Each of the following is an **insured** under this policy to the extent set forth below:

(a) if the **named insured** is designated in the declarations as an individual, the person so designated and his spouse;

(b) if the **named insured** is designated in the declarations as a partnership or joint venture, the partnership or joint venture so designated and any partner or member thereof but only with respect to his liability as such;

(c) if the **named insured** is designated in the declarations as other than an individual, partnership or joint venture, the organization so designated and any executive officer, director or stockholder thereof while acting within the scope of his duties as such; and

(d) any person (other than an employee of the **named insured**) or organization while acting as real estate manager for the **named insured**.

III. LIMITS OF LIABILITY

Regardless of the number of (1) **insureds** under this policy, (2) persons or organizations who sustain **bodily injury** or **property damage**, or (3) claims made or suits brought on account of **bodily injury** or **property damage**, the company's liability is limited as follows:

Coverage A—The total liability of the company for all damages, including damages for care and loss of services, because of **bodily injury** sustained by one or more persons as the result of any one **occurrence** shall not exceed the limit of **bodily injury** liability stated in the schedule as applicable to "each **occurrence**".

Coverage B—The total liability of the company for all damages because of all **property damage** sustained by one or more persons or organizations as the result of any one **occurrence** shall not exceed the limit of **property damage** liability stated in the schedule as applicable to "each **occurrence**".

Subject to the above provision respecting "each **occurrence**", the total liability of the company for all damages because of all **property damage** to which this coverage applies shall not exceed the limit of **property damage** liability stated in the schedule as "aggregate". If more than one project is designated in the schedule, such aggregate limit shall apply separately with respect to each project.

Coverages A and B—For the purpose of determining the limit of the company's

(over)

liability, all **bodily injury** and **property damage** arising out of continuous or repeated exposure to substantially the same general conditions shall be considered as arising out of one **occurrence.**

IV. ADDITIONAL DEFINITION

When used in reference to this insurance (including endorsements forming a part of the policy):

"**work**" includes materials, parts and equipment furnished in connection therewith.

V. POLICY TERRITORY

This policy applies only to **bodily injury** or **property damage** which occurs within the **policy territory.**

G522

VERMONT "SNOWMOBILE" ENDORSEMENT—If this policy is issued in the State of Vermont, it is agreed that the exclusion relating to the operation or use of any snowmobile or trailer designed for use therewith applies only if the **bodily injury** or **property damage** occurs away from premises owned by, rented to or controlled by the **named insured.**

Company Numbers
1 = *Reliance Insurance Company*
2 = *Planet Insurance Company*
6 = *United Pacific Insurance Company*
8 = *Reliance Insurance Co. of Illinois*

If this endorsement is issued concurrently with the policy, the Attaching Clause need not be completed.

Endt. No.

Issued by Co. No. 1

Effective Date 12/1/77

Insured City of Athens, Georgia

Additional Premium $ nil

☐ Premium subject to audit

Attached to and forming part of Policy No. GA 2 67 57 66

Countersigned by (Authorized Representative) E.H. CRUMP CO. OF GA., INC
BY:

Return Premium $ nil

All terms and conditions of the policy remain unchanged except as amended by this endorsement.

Unearned Premium Factor

It is agreed that Policy GA 2 67 57 66 will not be cancelled, changed, or allowed to lapse until thirty (30) days after The City of Athens has received written notice as evidenced by return receipt of registered letter.

/mb 12/1/77

☐ THE PREMIUM FOR THIS ENDORSEMENT IF ON INSTALLMENTS IS PAYABLE AS FOLLOWS:

	ADDITIONAL	RETURN	REVISED ANNIVERSARY PREMIUM
AT DATE OF ENDORSEMENT	$	$	(NOT APPLICABLE)
FIRST ANNIVERSARY	$	$	$
SECOND ANNIVERSARY	$	$	$

ORIGINAL COPY

Attach Coverage Part(s) and Endorsement(s) (If Any) Here

Conditions

1. Premium. All premiums for this policy shall be computed in accordance with the company's rules, rates, rating plans, premiums and minimum premiums applicable to the insurance afforded herein.

Premium designated in this policy as "advance premium" is a deposit premium only which shall be credited to the amount of the earned premium due at the end of the policy period. At the close of each period (or part thereof terminating with the end of the policy period) designated in the declarations as the audit period the earned premium shall be computed for such period and, upon notice thereof to the **named insured,** shall become due and payable. If the total earned premium for the policy period is less than the premium previously paid, the company shall return to the **named insured** the unearned portion paid by the **named insured.**

The **named insured** shall maintain records of such information as is necessary for premium computation, and shall send copies of such records to the company at the end of the policy period and at such times during the policy period as the company may direct.

2. Inspection and Audit. The company shall be permitted but not obligated to inspect the **named insured's** property and operations at any time. Neither the company's right to make inspections nor the making thereof nor any report thereon shall constitute an undertaking, on behalf of or for the benefit of the **named insured** or others, to determine or warrant that such property or operations are safe or healthful, or are in compliance with any law, rule or regulation.

The company may examine and audit the **named insured's** books and records at any time during the policy period and extensions thereof and within three years after the final termination of this policy, as far as they relate to the subject matter of this insurance.

3. Financial Responsibility Laws. When this policy is certified as proof of financial responsibility for the future under the provisions of any motor vehicle financial responsibility law, such insurance as is afforded by this policy for **bodily injury** liability or for **property damage** liability shall comply with the provisions of such law to the extent of the coverage and limits of liability required by such law. The **insured** agrees to reimburse the company for any payment made by the company which it would not have been obligated to make under the terms of this policy except for the agreement contained in this paragraph.

4. Insured's Duties in the Event of Occurrence, Claim or Suit.

(a) In the event of an **occurrence,** written notice containing particulars sufficient to identify the **insured** and also reasonably obtainable information with respect to the time, place and circumstances thereof, and the names and addresses of the injured and of available witnesses, shall be given by or for the **insured** to the company or any of its authorized agents as soon as practicable.

(b) If claim is made or suit is brought against the **insured,** the **insured** shall immediately forward to the company every demand, notice, summons or other process received by him or his representative.

(c) The **insured** shall cooperate with the company and, upon the company's request, assist in making settlements, in the conduct of suits and in enforcing any right of contribution or indemnity against any person or organization who may be liable to the **insured** because of injury or damage with respect to which insurance is afforded under this policy; and the **insured** shall attend hearings and trials and assist in securing and giving evidence and obtaining the attendance of witnesses. The **insured** shall not, except at his own cost, voluntarily make any payment, assume any obligation or incur any expense other than for first aid to others at the time of accident.

5. Action Against Company. No action shall lie against the company unless, as a condition precedent thereto, there shall have been full compliance with all of the terms of this policy, nor until the amount of the **insured's** obligation to pay shall have been finally determined either by judgment against the **insured** after actual trial or by written agreement of the **insured,** the claimant and the company.

Any person or organization or the legal representative thereof who has secured such judgment or written agreement shall thereafter be entitled to recover under this policy to the extent of the insurance afforded by this policy. No person or organization shall have any right under this policy to join the company as a party to any action against the **insured** to determine the **insured's** liability, nor shall the company be impleaded by the **insured** or his legal representative. Bankruptcy or insolvency of the **insured** or of the **insured's** estate shall not relieve the company of any of its obligations hereunder.

6. Other Insurance. The insurance afforded by this policy is primary insurance, except when stated to apply in excess of or contingent upon the absence of other insurance. When this insurance is primary and the **insured** has other insurance which is stated to be applicable to the loss on an excess or contingent basis, the amount of the company's liability under this policy shall not be reduced by the existence of such other insurance.

When both this insurance and other insurance apply to the loss on the same basis, whether primary, excess or contingent, the company shall not be liable under this policy for a greater proportion of the loss than that stated in the applicable contribution provision below:

(a) **Contribution by Equal Shares.** If all of such other valid and collectible insurance provides for contribution by equal shares, the company shall not be liable for a greater proportion of such loss than would be payable if each insurer contributes an equal share until the share of each insurer equals the lowest applicable limit of liability under any one policy or the full amount of the loss is paid, and with respect to any amount of loss not so paid the remaining insurers then continue to contribute equal shares of the remaining amount of the loss until each such insurer has paid its limit in full or the full amount of the loss is paid.

(b) **Contribution by Limits.** If any of such other insurance does not provide for contribution by equal shares, the company shall not be liable for a greater proportion of such loss than the applicable limit of liability under this policy for such loss bears to the total applicable limit of liability of all valid and collectible insurance against such loss.

7. Subrogation. In the event of any payment under this policy, the company shall be subrogated to all the **insured's** rights of recovery therefor against any person or organization and the **insured** shall execute and deliver instruments and papers and do whatever else is necessary to secure such rights. The **insured** shall do nothing after loss to prejudice such rights.

8. Changes. Notice to any agent or knowledge possessed by any agent or by any other person shall not effect a waiver or a change in any part of this policy or estop the company from asserting any right under the terms of this policy; nor shall the terms of this policy be waived or changed, except by endorsement issued to form a part of this policy, signed by a duly authorized representative of the company.

9. Assignment. Assignment of interest under this policy shall not bind the company until its consent is endorsed hereon; if, however, the **named insured** shall die, such insurance as is afforded by this policy shall apply (1) to the **named insured's** legal representative, as the **named insured,** but only while acting within the scope of his duties as such, and (2) with respect to the property of the **named insured,** to the person having proper temporary custody thereof, as **insured,** but only until the appointment and qualification of the legal representative.

10. Three Year Policy. If this policy is issued for a period of three years any limit of the company's liability stated in this policy as "aggregate" shall apply separately to each consecutive annual period thereof.

11. Cancellation. This policy may be cancelled by the **named insured** by surrender thereof to the company or any of its authorized agents or by mailing to the company written notice stating when thereafter the cancellation shall be effective. This policy may be cancelled by the company by mailing to the **named insured** at the address shown in this policy, written notice stating when not less than ten days thereafter such cancellation shall be effective. The mailing of notice as aforesaid shall be sufficient proof of notice. The time of surrender or the effective date and hour of cancellation stated in the notice shall become the end of the policy period. Delivery of such written notice either by the **named insured** or by the company shall be equivalent to mailing.

If the **named insured** cancels, earned premium shall be computed in accordance with the customary short rate table and procedure. If the company cancels, earned premium shall be computed pro rata. Premium adjustment may be made either at the time cancellation is effected or as soon as practicable after cancellation becomes effective, but payment or tender of unearned premium is not a condition of cancellation.

12. Declarations. By acceptance of this policy, the **named insured** agrees that the statements in the declarations are his agreements and representations, that this policy is issued in reliance upon the truth of such representations and that this policy embodies all agreements existing between himself and the company or any of its agents relating to this insurance.

IN WITNESS WHEREOF, the issuing company has executed and attested these presents, but this policy shall not be valid unless countersigned by a duly authorized representative of the company.

UNITED PACIFIC INSURANCE COMPANY

Secretary

John J. Savage

President

RELIANCE INSURANCE COMPANY

Secretary

A. Addison Roberts

President

This endorsement modifies the provisions of the policy relating to **ALL AUTOMOBILE LIABILITY, GENERAL LIABILITY AND MEDICAL PAYMENTS INSURANCE OTHER THAN COMPREHENSIVE PERSONAL AND FARMER'S COMPREHENSIVE PERSONAL INSURANCE.**

Nuclear Energy Liability Exclusion Endorsement--Broad Form

It is agreed that:

I. The policy does not apply:

A. Under any Liability Coverage, to **bodily injury** or **property damage**

(1) with respect to which an **insured** under the policy is also an insured under a nuclear energy liability policy issued by Nuclear Energy Liability Insurance Association, Mutual Atomic Energy Liability Underwriters or Nuclear Insurance Association of Canada, or would be an insured under any such policy but for its termination upon exhaustion of its limit of liability; or

(2) resulting from the **hazardous properties** of **nuclear material** and with respect to which (a) any person or organization is required to maintain financial protection pursuant to the Atomic Energy Act of 1954, or any law amendatory thereof, or (b) the **insured** is, or had this policy not been issued would be, entitled to indemnity from the United States of America, or any agency thereof, under any agreement entered into by the United States of America, or any agency thereof, with any person or organization.

B. Under any Medical Payments Coverage, or under any Supplementary Payments provision relating to first aid, to expenses incurred with respect to **bodily injury** resulting from the **hazardous properties** of **nuclear material** and arising out of the operation of a **nuclear facility** by any person or organization.

C. Under any Liability Coverage, to **bodily injury** or **property damage** resulting from the **hazardous properties** of **nuclear material,** if

(1) the **nuclear material** (a) is at any **nuclear facility** owned by, or operated by or on behalf of, an **insured** or (b) has been discharged or dispersed therefrom;

(2) the **nuclear material** is contained in **spent fuel** or **waste** at any time possessed, handled, used, processed, stored, transported or disposed of by or on behalf of an **insured**; or

(3) the **bodily injury** or **property damage** arises out of the furnishing by an **insured** of services, materials, parts or equipment in connection with the planning, construction, maintenance, operation or use of any **nuclear facility,** but if such facility is located within the United State of America, its territories or possessions or Canada, this exclusion (3) applies only to **property damage** to such **nuclear facility** and any property thereat.

II. As used in this endorsement:

"hazardous properties" include radioactive, toxic or explosive properties;

"nuclear material" means **source material, special nuclear material** or **byproduct material;**

"source material", "special nuclear material", and **"byproduct material"** have the meanings given them in the Atomic Energy Act of 1954 or in any law amendatory thereof;

"spent fuel" means any fuel element or fuel component, solid or liquid, which has been used or exposed to radiation in a **nuclear reactor;**

"waste" means any waste material (1) containing **byproduct material** and (2) resulting from the operation by any person or organization of any **nuclear facility** included within the definition of **nuclear facility** under paragraph (a) or (b) thereof;

"nuclear facility" means

(a) any **nuclear reactor,**

(b) any equipment or device designed or used for (1) separating the isotopes of uranium or plutonium, (2) processing or utilizing **spent fuel,** or (3) handling, processing or packaging **waste,**

(c) any equipment or device used for the processing, fabricating or alloying of **special nuclear material** if at any time the total amount of such material in the custody of the **insured** at the premises where such equipment or device is located consists of or contains more than 25 grams of plutonium or uranium 233 or any combination thereof, or more than 250 grams of uranium 235,

(d) any structure, basin, excavation, premises or place prepared or used for the storage or disposal of **waste,**

and includes the site on which any of the foregoing is located, all operations conducted on such site and all premises used for such operations;

"nuclear reactor" means any apparatus designed or used to sustain nuclear fission in a self-supporting chain reaction or to contain a critical mass of fissionable material;

"property damage" includes all forms of radioactive contamination of property.

A0002-G503

MICHIGAN ENDORSEMENT: (In case this policy is written in the State of Michigan, the following applies.)
CANCELLATION CONDITION—AMENDMENT OF FIRST PARAGRAPH: It is agreed that with respect to the "Cancellation" provisions of the policy:

1. The words "at the address shown in this policy", appearing in the first paragraph of the "Cancellation" Condition, are amended to read "at his address last known to the company or its authorized agent".
2. The provisions (if forming a part of the policy) of the endorsement entitled "Amendment of Termination Provisions (Michigan)" apply as stated therein.
3. The provisions, if any, forming a part of the policy which (by endorsement or otherwise) amend the "Cancellation" provisions of the policy other than as stated or designated in this endorsement are deleted.

NEW YORK—It is agreed that the provisions of the "Nuclear Energy Liability Exclusion Endorsement—Broad Form", printed above, do not apply in New York with respect to any Automobile Bodily Injury Liability and Automobile Property Damage Liability coverage afforded by this policy.

A0015-G514

KANSAS AMENDMENT OF SUBROGATION CONDITION—It is agreed that the Subrogation Condition does not apply to any Medical Payments Insurance provided by the policy.

December 8, 1977

Mr. Bruce R. Kovac
Municipal Wastewater Program
Department of Natural Resources
Environmental Protection Division
270 Washington Street, S. W.
Atlanta, Georgia 30334

Re: Project C130351 - Contract "G"

Dear Mr. Kovac:

I am enclosing three (3) copies of the executed Contract "G" under Project C130351.

An insurance certificate for flood insurance covering the pumping station on McNutt Creek near the Middle River Plant is not included. The Contractor states that he is having some difficulty finding an insurer that will insure a sub-surface structure in a flood plain. We will pursue this further to a satisfactory result. Insurance actually will not be needed until 10 or 12 months hence since it will be that long before actual construction of the structure begins.

Sincerely,

William T. Cook, Jr.
Administrative Ass't. to Mayor

WTC:sm
Encl.

cc: W. L. Carey
Wiedeman and Singleton
Environmental Protection Agency - Caleb Dana

SET TAB STOPS AT ARROWS

Certificate of Insurance

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY

E. H. Crump Company of Georgia, Inc.
Suite 430 - 100 Colony Square
Atlanta, Georgia 30361

NAME AND ADDRESS OF INSURED

W. L. Carey General Contractor, Inc.
P. O. Box 441
Royston, Georgia 30661

COMPANIES AFFORDING COVERAGES

COMPANY LETTER **A**	RELIANCE INSURANCE COMPANY
COMPANY LETTER **B**	TRAVELERS INSURANCE COMPANY
COMPANY LETTER **C**	
COMPANY LETTER **D**	
COMPANY LETTER **E**	

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)	EACH OCCURRENCE	AGGREGATE
A	**GENERAL LIABILITY** ☒ COMPREHENSIVE FORM ☒ PREMISES—OPERATIONS ☒ EXPLOSION AND COLLAPSE HAZARD ☒ UNDERGROUND HAZARD ☒ PRODUCTS/COMPLETED OPERATIONS HAZARD ☒ CONTRACTUAL INSURANCE ☒ BROAD FORM PROPERTY DAMAGE ☒ INDEPENDENT CONTRACTORS ☒ PERSONAL INJURY	C16 453286	8/24/78	BODILY INJURY	$300	$300 *
				PROPERTY DAMAGE	$100	$100
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	$
				*Applies to Products/Completed Operations Hazard.		$300 (PERSONAL INJURY)
A	**AUTOMOBILE LIABILITY** ☒ COMPREHENSIVE FORM ☒ OWNED ☒ HIRED ☒ NON-OWNED	GA 7160490	8/24/78	BODILY INJURY (EACH PERSON)	$100	
				BODILY INJURY (EACH OCCURRENCE)	$300	
				PROPERTY DAMAGE	$100	
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	
A	**EXCESS LIABILITY** ☒ UMBRELLA FORM ☐ OTHER THAN UMBRELLA FORM	LU 7526600	8/24/78	BODILY INJURY AND PROPERTY DAMAGE COMBINED	$1,000	$1,000
B	**WORKERS' COMPENSATION and EMPLOYERS' LIABILITY**	6UB-190E480-0-77	2/24/78	STATUTORY		
					$100 (EACH ACCIDENT)	

CANCELLATION ~~OR~~ CLAUSE: The Insurance Company agrees that the above policies will not be cancelled, changed, or allowed to lapse until 30 days after the City of Athens has reveived written notice as evidenced by return receipt of registered letter.

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

JOB: Contract G - Division 1 & 2
Sewage Improvements for the City of Athens

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail _____ days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

City of Athens

Athens, Georgia 30601

DATE ISSUED: 11/23/77 2/vb

BY: Dave Hemutze
AUTHORIZED REPRESENTATIVE

7/76